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THE UNIVERSITY OF ALBERTA

The Scandinavian Tonal Accents: Towards a New Theory of Origin

by

Kevin J. Brown

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled The Scandinavian Tonal Accents: Towards a New Theory of Origin submitted by Kevin J. Brown in partial fulfilment of the requirements for the degree of MASTER OF ARTS.

R. d'Alquen
Supervisor

S. Hale

Date October 6, 1989

Abstract

The present thesis deals with tonal accent in Norwegian and Swedish. After providing a general discussion of the realization, distribution and function of the two word tones from a synchronic viewpoint, the thesis goes into the historical development of Scandinavian accentuation. The best known existing theories on this topic are summarized and discussed in considerable detail, with the conclusion that they all seem to fall short in accounting adequately for the phenomena.

The main aim of the thesis is to lay the groundwork for the understanding of the history and development of Scandinavian accent from a new perspective. To this end, attention is drawn to a theory linking accent and syllable weight recently proposed by Richard d'Alquen. Heavy syllables draw the accent, whereas light syllables tend to give it up, so that the Scandinavian Accent II with its ultimate pitch rise is seen as resulting from the presence of heavy post-radical syllables in early stages of the Scandinavian languages.

An investigation into the relevance of this theory to the Scandinavian tonemes is undertaken through an examination of the correspondences between heavy post-radical sequences in Proto-Norse and the present-day Accent II in noun and verb paradigms. Adjectives and adverbs are briefly discussed. The results show a clear correspondence, indicating that heavy post-radical syllables were the likely cause of the Accent II tonal pattern. The surprisingly few exceptions are easily explained by analogy. The Early Proto-Norse period was found to be the most influential stage with respect to the development of tonal accent.

Further research into syllable weights and accent in adjectives, an examination of the applicability of the theory to derivational suffixes and compounds and the consideration of data from dialects could help to strengthen the evidence.

Acknowledgements

I would like to express my appreciation to Dr. Richard d'Alquen and Dr. Christopher Hale for their advice, guidance, patience and constant encouragement throughout the preparation of this thesis. I also extend my thanks to Marianne Morse for her tireless assistance with the Swedish examples in my text and also to Dr. James Manis and Dr. Manfred Prokop for their help with the computer.

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TABLE OF SYMBOLS AND ABBREVIATIONS

A/acc.	accusative case
C	consonant
D/dat.	dative case
E.P.N.	Early Proto-Norse
fem.	feminine
G/gen.	genitive case
Gk.	Greek
Gmc.	Germanic
H	heavy syllable
I.E.	Indo-European
imp.	imperative
ind.	indicative
inf.	infinitive
L	light syllable
masc.	masculine
N/nom.	nominative case
Norw.	Norwegian
neut.	neuter
O.N.	Old Norse
opt.	optative
part.	participle
pl.	plural
P.N.	Proto-Norse

pres.	present
pret.	preterite
S/'Swed.'[1]	Swedish
sg.	singular
V	vowel of unspecified length
V̄/V:[2]	long vowel
V̆	short vowel
X	any syllable of unspecified weight
→	becomes
←	evolves/derives from
–	if unfollowed, indicates zero
*	reconstructed form
'	Toneme/Accent I
"	Toneme/Accent II
~	varies with
ˈ	accented syllable

---

[1] S is used to mark Swedish forms in the tables of the Appendix.
[2] For typographical reasons, : had to be used instead of ˉ in some instances.

I. Introduction

The two tonal word accents which characterize Norwegian and Swedish speech have long interested scholars, but little concensus has ever been reached regarding their origin. The present work attempts to deal with the matter of Norwegian and Swedish tonal accent both synchronically and diachronically. It has three aims: (1) to describe generally the accents and provide an overview of some major points regarding their description and nature, (2) to summarize the major existing theories on the origin of the accents, (3) to present a new theory recently put forth by Richard d'Alquen and examine Norse noun and verb paradigms in light of this theory.

The area of Scandinavian accentuation is new to me, and therefore much background research was necessary in order to familiarize myself with the main ideas and issues. Chapters II and III are intended not only to reflect this research, but moreover to provide those readers not acquainted with Scandinavian accentology with a sufficiently detailed background; a general familiarity with historical Germanic linguistics and Germanic and Scandinavian vocabulary[1] is, of course, assumed. For the readers' sake as well as my own, I have endeavored throughout to express information and ideas as simply as possible without sacrificing accuracy or completeness. References to sources are generously indicated to allow the reader easy access for clarification or further information.

---

[1] For the reader unfamiliar with a Scandinavian language, both a Norwegian and a Swedish dictionary are suggested, as translations of vocabulary items have been provided only where absolutely necessary.

The new theory, discussed in Chapter IV, is based upon the principle that long or heavy syllables attract accent. D'Alquen has examined Germanic accent in terms of this theory and proposes that it may also provide the key to a better explanation of the Scandinavian Accents I and II.[1] My task in Chapter V is, specifically, to investigate the coincidence of the modern Accent II with a heavy post-radical syllable in Proto-Norse. It is hoped that this investigation, limited though it may be, will lay the groundwork for the understanding of the history of Scandinavian accentuation from a new perspective and thereby lend hitherto unattained clarity to a seemingly complicated and confusing issue.

The present thesis pertains generally to accentuation in all Norwegian and Swedish dialects that exhibit word tones, but my specific reference points are Norwegian Bokmål and Standard (Stockholm) Swedish. The term *Scandinavian* can thus be taken, in most cases, to mean Norwegian and Swedish only; and the terms *Norwegian* and *Swedish* can be taken to refer to the standard languages. Although the use of Bokmål as a reference point is problematic because of its Danish origins and the lack of a uniform standard--and some

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[1] Richard d'Alquen, p. 229.

Scandinavian specialists may protest my use of it on these grounds--I found it the most extensive and most accessible source for Norwegian because of the abundance of reference materials. Care has been taken to avoid specifically Danish forms.

I have chosen to exclude Danish from this investigation altogether except in passing reference and in explaining Liberman. I feel that I presently lack the knowledge and materials to conduct a proper examination of its accent system in terms of d'Alquen's theory. Nevertheless, I am quite certain that the theory can be expanded, using evidence from acoustic phonetics, to accommodate the development of the Danish *stød*.

At this point it would seem logical to clarify a few other terms. The words *accent*, *accentuation* and *accent system* can refer to both the musical and expiratory[5] accentual elements, whereas *tone* and *toneme* refer specifically to the musical element. *Accent I* and *Accent II*, however, should be considered fully interchangeable with *Toneme I* and *Toneme II*; the terms *Accent I/Accent II* are usually used by historical linguists and carry with them the added implication of expiratory stress on the root. *Heavy* and *light*, the terms used by d'Alquen to characterize syllable weights,[6] may be considered more or less equivalent to the traditional length values of *long* and *short*, respectively.

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[5] i.e., pitch and stress/intensity, respectively.

[6] See: Chapter IV, p. 47.

II. Realization, Distribution and Function of Tonemes in Present-Day Norwegian and Swedish

General Remarks

Before embarking on any kind of description of the Norwegian and Swedish word tones, it must be noted that there is still--despite the vast amount of research done in this area--some disagreement among scholars in this regard. Not all scholars even agree on the number of different tonemes present in these languages. While most identify two basic contrasting word tones, others, like Arne Vanvik, insist on the existence of a third.[7] After some consideration, I have chosen to support the most popular and widely accepted descriptions of toneme manifestation, since they seem to provide all of the distinctions necessary for a historical study. I shall, therefore, assent to the idea of two basic word tones, rather than trying to find further evidence to promote theories such as Vanvik's.

Many of the points of controversy can be avoided if we choose to deal with the tonemes as they are manifested on words spoken in isolation. In fact, for the purposes of a historical study such as I am undertaking, an examination and description of the tonemes as found on words in isolation is clearly the first task, since Norwegian and Swedish do exhibit tonemic contrast in individual word-pairs. It is expected that when words are put together into phrases or sentences, the phrase or sentence intonation (*setningsmelodi*) may influence the pitch contours of certain words with respect to length and shape, producing pitch contours that differ from those described for the two basic word tones.[6]

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[7] See: Arne Vanvik (1963), p. 47-53.

In attempting to present an objective overview of the current situation with respect to tonemes in Norwegian and Swedish, it seems most logical to begin with a discussion of how the tones are characterized phonologically. From that information we can then draw conclusions about where tonal contrast is present and thus about the distribution and function of the tonemes.

Realization of Tonemes

It is impossible to give a single phonological description of the Scandinavian word tones which will apply to every dialect of Norwegian and Swedish, for the manifestations of the tones occur, as Gårding puts it, "in a bewildering variety".[7] (Tables I and II in the Appendix provide the reader with a sampling of the variety of manifestations found in Swedish and Norwegian.) To go into depth in describing these tonal manifestations would be to overstep the bounds of necessity in terms of our objectives here, and therefore I will keep the descriptions most basic and generally applicable and make no claim to geographical completeness or total phonological coverage. My parameters of description follow closely those of Murat Roberts.[10] Of course, the main point to be kept in mind when discussing word tones is not the exact pitch pattern, but rather the simple fact that a tonal contrast does exist between different patterns and is proven by the existence of minimal pairs like Norwegian *'hender* ('hands'):*"hender* ('happens').

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[6] The study of such *tonelagsgrupper* ('phrasal tone groups') seems to be the basis for Vanvik's claim about the existence of a third toneme, a slightly falling tone which, he says, is found on monosyllables and often accompanied by so-called "falling *phrase* intonation" [A. Vanvik (1963), p. 48; italics mine]. Borgstrøm already notes that the "falling phrase intonation" tends to obscure the difference between Tonemes I and II (See: C. H. Borgstrøm, p. 34-7), and Vanvik himself states that the "falling phrase intonation" may have the function of juncture [A. Vanvik (1963), p. 50], so that Vanvik's Toneme III appears most clearly to be a result of sentence intonation influencing the normal pitch contours of the two basic tones. Word tone and phrase or sentence intonation--often difficult to separate in Norwegian and Swedish speech analysis--have been confused.

[7] Eva Gårding, p. 5.

Two distinct pitch curves or tonal movements are found on individual words in Norwegian and Swedish. The first of these is characterized generally by a *rising pitch* on the stressed syllable. According to Roberts, the onset of the stressed syllable begins at high pitch, the pitch rises further throughout the syllable and the syllable ends on a higher pitch.[11] Thus the overall tonal movement is one of *high-higher*, contrasting with the typical English and German pattern for stressed monosyllables of *mid-high-lower*. In Norwegian non-compounded disyllables with this type of pitch curve, the melodic rise may carry over into the next syllable and reach its peak there, whereas in Swedish the peak occurs typically within the boundaries of the stressed syllable, and the following unstressed syllable has very low pitch.[12] This type of tonal movement has been called *acute accent*, *Accent I* or *Toneme I*. The term *simple accent* has also been used to indicate that the tonal movement is essentially unidirectional: a simple melodic rise which parallels the rise in stress on the stressed syllable.

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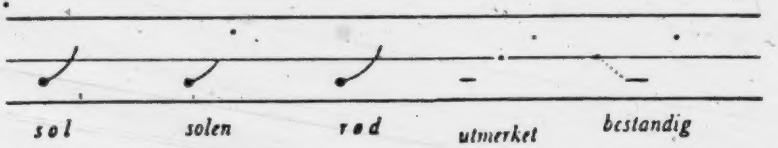
[10] See: Murat Roberts, p. 173-6.
[11] ibid., p. 173.

Diagramatically, Popperwell has represented Toneme I on monosyllables and non-compounded disyllables in Norwegian as follows:[13]



The second type of tonal pattern found in Norwegian and Swedish consists typically of a *falling pitch* on the first part of the stressed syllable. In Norwegian, the pitch contour reaches its lowest point near the end of the stressed syllable, changes direction and *rises* rather sharply on the final syllable, so that the overall melodic pattern is one of *falling-rising*. This pattern is essentially the same for all polysyllables regardless of the number of syllables in the word: the falling pitch is concentrated on the stressed, root syllable and the greatest part of the rise occurs on the final syllable. In Swedish, the onset of the rise may occur slightly sooner, and the rise is followed by a rapid drop in pitch, yielding an overall pattern of *falling-rising-falling*. The rise-fall may occur within a single unstressed syllable or may be distributed over several; most significant, though, is the presence of the characteristic fall-rise. This pattern of tonal movement is referred to as the *grave accent*, *Accent II* or *Toneme II*. The designation *complex* or *compound accent* derives from the fact that the tone changes direction within the word, so that the essential part of the toneme appears to be comprised of two distinct parts: a fall and a rise. This contrasts with the simple accent with its single principal part, the rise.

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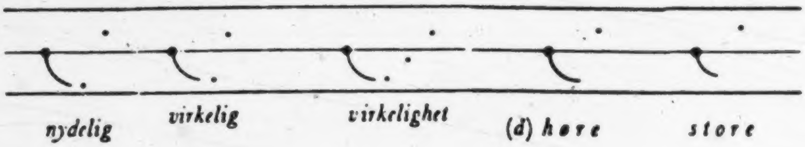
[12] ibid.
[13] R. G. Popperwell, p. 169, 171.

Popperwell has represented the compound accent or Accent II on various Norwegian polysyllables with the following diagrams:[14]



Tonemes, Syllables and Syllable Stress

In both Norwegian and Swedish, we observe that the occurrence of tonemes is inextricably bound up with the presence of a stressed syllable, which, according to the Germanic stress pattern, is also the root and, in polysyllables, most often the first syllable. According to Martin Kloster-Jensen, a toneme is principally realized, according to instrumental measurement, on a syllable with primary stress; unstressed syllables or those with secondary stress do not seem to carry a so-called *relevant* tonal movement.[15] This is not to say that the tonal movement on unstressed syllables does not make up part of the entire word tone, for according to the above descriptions it most certainly does; but rather what is meant here is that Tonemes I and II can be acoustically distinguished by the tonal movement on the stressed syllable alone. Whether or not the native speaker actually does this in real speech has been much debated; in fact, most native speakers insist that they identify Toneme II by the presence of more "stress" on the last syllable.[16] However, sound spectography tests have shown no measurable difference in the stress patterns between polysyllables with Toneme I as opposed to Toneme II. In a study of time length differences, O. Gjerdman found that words with Toneme II seem frequently to have a somewhat longer first or stressed syllable than similarly structured words with Toneme I.[17] In the case of Toneme II, the speaker dwells on the tonal movement more, concentrates more energy on producing the toneme and therefore the overall tonal movement is greater. As Haugen puts it: "Accent 1 is characterized as a short nucleus, concentrating the relevant tonal movement within the stressed syllable, [Accent] 2 as a long nucleus, in which the tonal movement runs over into the next."[18]

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[14] ibid., p. 171-2.
[15] See: Martin Kloster-Jensen, p. 41 ff.

Toneme II, as Murat Roberts has noted, exhibits the odd quality that stress and pitch seem to be working disjunctively.[19] One would normally expect the syllable with the greatest stress to carry the highest or, at least, a rising tone, as we find with Toneme I. "The fundamental law of the voice requires that the *fortissimus* (strongest power) of the dynamic accent be united with the *altissimus* (highest tone) of the melodic accent."[20] The naturalness of such a union is shown by the above-mentioned fact that native speakers commonly attribute the distinguishing characteristic of Toneme II to "stress" on the last syllable, when in fact what they are hearing on that syllable is a rise in melodic pitch. A realignment of the inherited disjunct operation of stress and pitch in Toneme II words is perhaps the best explanation for the tendency of many dialects to develop a Toneme II which is phonologically more like a typical Toneme I, as the diagrams in Table I (Nos. 14-35 esp.) of the Appendix reveal. The evolution of several "toneless" Norwegian and Swedish dialects (see: Map I in Appendix) may be explained as part of the natural linguistic process of eliminating unusual features.

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[16] ibid., p. 46.
[17] O. Gjerdman, p. 148.
[18] E. Haugen and M. Joos, p. 51.
[19] Murat Roberts, p. 175-6.

Distribution of the Tonemes

Although the realizations, i.e. the pitch curves, of the tonemes may differ from dialect to dialect, the distribution of the two basic accents is for the most part the same in all Norwegian, Swedish and also Danish dialects exhibiting a tone or *stød* distinction. That is, a word which is said to carry Tone I in Norwegian will also have Tone I in Swedish and *stød* in Danish. A noteworthy exception to this is found in the so-called "syncopated comparatives", certain comparative forms such as *større*, *verre*, *betre*, which exhibit Toneme I in the Central Norwegian and Swedish dialects, but carry Toneme II--or alternate between Tonemes I and II--in several Western Norwegian and Southwestern Swedish speech areas (see: Map II in Appendix).[21]

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[20] ibid.

The number of syllables in a word plays an important part in the present-day distribution of the tonemes. Of principal significance here is the distinction between *monosyllables* and *polysyllables*: Toneme II occurs *only* on polysyllables, Toneme I is found on *all* monosyllables, so that only polysyllables can show a contrast between the two tonemes. Such a distribution is not unexpected, since a polysyllable provides a type of structure which can very easily accommodate a Toneme II. Even though the two word tones can be distinguished from the pitch contour on one--namely the root--syllable, and that syllable could conceivably house the entire tone, a second syllable gives the change in pitch contour more room to be completed, helps to support the pitch rise which occurs after the fall. This is exemplified by the fact that monosyllabic *'far*, the Modern Norwegian contracted form of the older *"fader*, has abandoned its original Toneme II in favour of Toneme I, but the disyllabic definite form *"faren* still exhibits the original Toneme II.[22] Normally monosyllables retain Toneme I in their definite singular form.

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[21] Magne Oftedal, p. 212-13.
[22] R. G. Popperwell, p. 196.

At first glance, the distribution of the word tones on polysyllables in Modern Scandinavian may appear rather arbitrary, but closer examination reveals that the phonological make-up of the syllables, above all the phonology of the post-radical syllable(s), will often determine whether a given polysyllable takes Toneme I or II. Grammatical classifications, such as whether a verb is classed as strong or weak, whether a noun is singular or plural, also play a role in toneme distribution. The main points of consideration in specifying which polysyllables have what toneme according to phonological syllable structure and grammatical classifications may be outlined for Modern Norwegian as follows.[23]

POLYSYLLABLES WITH TONEME I

I. Nouns

A. The definite singular forms of all monosyllables with suffixed definite article, including the definite form of the genitive singular of these words.
EXCEPTIONS: Terms of relationship which were originally disyllabic take Toneme II in their definite singular forms: e.g. *"faren, "moren, "broren*.

B. Many disyllabic nouns in *-el*, *-en* and *-er* which were monosyllabic in Old Norse, but became disyllabic through the insertion of an epenthetic vowel: e.g. *nagl* → *'nagel, botn* → *'botten, akr* → *'aker*. Also newer loan words with similar structure.
EXCEPTIONS: *"nitten* and all other numbers in *-ten*. *"ankel, "djevel, "engel, "kjørel, "himmel, "nøkkel, "støvel, "viden*.

C. The plural forms of the nouns in category B above (polysyllabic Toneme I nouns) take Toneme I also.

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[23] Information based on R. G. Popperwell, p. 152-168.

II. Adjectives

A. Comparatives in *-re* with a vowel change.
EXCEPTIONS: Comparatives denoting positions, such as *"bakre, "fremre, "midtre, "nedre, "nordre, "indre, "søndre, "ytre, "øvre.*

III. Verbs

A. Present tense of all strong verbs.

POLYSYLLABLES WITH TONEME II

I. Nouns

A. All other polysyllabic nouns not specified above in all of their forms.

B. The definite and indefinite plural forms of Toneme I monosyllables.
EXCEPTIONS: (1)Single-syllable nouns which do not change in the indefinite plural take Toneme I in the definite plural: *'milene, 'tapene, 'barna*; (2) Nouns that take a vowel change in the plural: *'nettene, 'gjessene, 'tærne; 'bøker, 'føtter, 'bønder, 'hender, 'netter, 'strender, 'tenner.*

C. All nomina agentis (ending *-er*).

D. Nouns in *-(n)ing*.

II. Adjectives

A. Comparatives and superlatives in *-ere, -est*.

B. Adjectives in *-ig, -en* (including participles) and *-el*.

C. All adjectives in their plural and weak forms, including inflected superlatives.

III. Verbs

A. Polysyllabic infinitives, polysyllabic past participles and all present participles, weak verbs in the simple past.

Function of the Tonemes

A. S. Liberman regards the two Scandinavian word tones as word prosodemes which make up a privative opposition. Toneme II is the marked member of the pair and serves "to bring out the absence of word boundries within its domain and unify the syllables within a word".[24] Toneme I, the unmarked member, has no specific function,[25] other than that of providing a contrast to Toneme II. Moreover, tonemes may create lexical or grammatical contrast; they can act as "disambiguators".[26] Lexical contrast is illustrated by Norwegian *'tanken* ('the tank') versus *"tanken* ('the thought'), or Swedish *'tomten* ('the lot') versus *"tomten* ('the elf'), *'anden* ('the duck') versus *"anden* ('the spirit'), where the part of speech remains the same, but the toneme specifies one of two possible meanings for a certain phonemic combination. On the other hand, Toneme I on West Norwegian *'reven* marks it grammatically as a noun in the definite singular and gives the listener to understand 'the fox'; Toneme II on *"reven* marks it, by contrast, as the past participle of *à rive* ('to tear') and gives the listener to understand 'torn'.[27] *'Hender* with Toneme I is identified by that toneme as the noun plural 'hands', but Toneme II on the same phonemic combination yields the third person present form of 'to happen'. In Norwegian *'lànet* (/'lå:nə/ 'the loan') and *"làne* (/"lå:nə/ 'to lend'), the change from

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[24] A. S. Liberman (1976), p. 1.
[25] ibid.
[26] Alice Grundt (1977), p. 183-4.
[27] Martin Kloster-Jensen, p. 20-1.

Toneme I to Toneme II indicates a morphological distinction between the suffixed definite article for the neuter singular and the infinitive ending for a verb.[28] The Eastern Norwegian dialect of Telemark uses Toneme I on ordinal teens and so distinguishes them from otherwise homophonous present participles.[29]

Although the present-day tonemes may create such contrasts, one cannot say that this function is absolutely essential for communication, but rather it is simply one of many redundancies which are characteristic of natural language. Context and situation are usually quite sufficient for clearing up any possible ambiguities, so that the *functional load* of the tonemic opposition is, in normal speech, very low indeed. This is reflected in the fact that the tones are not indicated in writing, as well as the disappearance of the tone distinction altogether in several Norwegian and Swedish speech areas. The similarity in pitch contours between Tonemes I and II in other speech areas (see: Table I, nos. 14-35 esp.) might well be the intermediate step to toneme merger and the loss of the tonemic opposition there.

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[28] ibid.

[29] ibid., p. 37.

III. Existing Theories on the Origin and Development of Scandinavian Tonal Accent

General Remarks

Interest in the Scandinavian accent system seems to have begun as a by-product of the seventeenth and eighteenth century European quest for standardized and correct literary usage. One of the first documentations of the Scandinavian tonal contrast is contained in Anders Nicander's *Oförgriplige Anmærckningar öfwer Swenska Skalde-Konsten* (1737), where the author's main concern was to help the rhyming poet recognize and thus avoid word pairs which rhymed phonemically, but had contrasting tonemes.[30] Now that attention had been formally drawn to the tonal contrast, nineteenth century philologists began to investigate and theorize on the origins and development of this contrast. By far the most noteworthy of these philologists was the late nineteenth century Swedish scholar Axel Kock. Even if his extensive research and voluminous writings did not conclusively resolve the question of the origin of Scandinavian accentuation, he did produce a theory which still commands much recognition as well as manage to kindle the thoughts of other linguists on this matter.

The major existing theories on the origin and development of Scandinavian tonal accent can be placed into four main categories: (1) Theories which explain the development of Scandinavian accentuation from Late Proto-Norse and the time of syncopation, (2) those which see the tone distinction as a product of the expansion of old monosyllables through epenthesis and the addition of enclitics during the Old Scandinavian Period (900-1400), (3) theories which view the word tones as remnants or reflexes of an Indo-European accent system, (4) other theories.

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[30] Axel Kock (1878), p. 23-4.

1. Axel Kock: Proto-Norse and Syncopation

One wonders at the support--or at least silent acceptance--which Axel Kock's theorizing has received over the years when one discovers the lack of unity, the amazingly complex explanations and the meticulous attention to a multitude of exceptions that characterize his first two tomes entitled *Språkhistoriska Undersökningar om Svensk Akcent* (1878, 1884-85). The time-honoured operating principle of the simplest and most straightforward hypothesis being the best certainly found no place here; in fact, Kock does not seem to have completely formulated his theory until five years after the second of these tomes appeared. The 1891 article "Kvantitet och akcent" is the first of Kock's writings to contain any kind of concise, explicit statement of what his theory is. The theory is again outlined in the 1901 publication *Die alt- und neuschwedische Accentuierung*, but with a few changes and the addition of more detail. I must confess that I find Kock's writings puzzling and do not understand how he arrives at many of his conclusions about accentuation in former times. Others seem equally puzzled--and perhaps this is why so few have challenged his ideas--for no one, as far as I can determine, has managed to sort through his writings and explain the fundaments of his theory. Nowhere does one find Kock's views summarized, but rather other linguists seem only to pick out certain points from his work and deal with them. My attempt to recapitulate the main points of Kock's theory is based primarily on the 1891 and 1901 works.

The starting point of Axel Kock's theory is the assumption of an 'initial' set of accentual conditions which existed in a previous stage of the Scandinavian languages. Kock defines as his 'beginning' stage Common Old Norse (*samnordisk*, *Gemeinnordisch*) and deduces its accentual conditions by matching present-day word forms and their tonal accents with the corresponding attested Old Norse and reconstructed Proto-Norse forms. The present-day accentual conditions are thus explained through changes in the syllable structure of certain words from Late Proto-Norse to Common Old Norse.[31]

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[31] At first, Kock says little about how the accentuation of Proto-Norse came into being or about earlier conditions. But in some of his later works he tries to show his theory as being compatible with the ideas of the Adolf Noreen, an advocate of Indo-European origins. For the sake of simplicity, I have ignored here the ties to Indo-European accentuation which Kock later accepted as a possibility. This matter will be dealt with later in the discussion of Adolf Noreen's work.

Kock's theory places great importance on the extensive Late Proto-Norse syncopation as the major influence in the creation of the present accentuation. According to Kock, those Proto-Norse words which lost a weakly accented vowel immediately after the root syllable during the Syncopation Period received the *Accent I[32] in Common Old Norse, regardless of the original number of syllables in the word.[33] Such words as O.N. *steinn* (← **stainăR*), *dømdir* (← **ðōmiðai*), *dag* (← **ðăǥă*), *lengri* (← **langiRā*) belong in this group.[34] By way of analogy, all words which had become monosyllabic in Proto-Germanic or were monosyllabic already in Indo-European adopted the accentuation which developed through syncopation on monosyllables like O.N. *steinn* and *dag*.[35]

Common Old Norse words with *Accent I are assumed to have been *expiratorily* accented with a double-peaked[36] fortis on the root syllable if that syllable was long, but a single-peaked fortis if that syllable was short.[37] The double-peaked fortis came into being, according to Kock, through the "throwing back" (*tillbakakastning*) of the accent which was carried on the syncopated post-radical Proto-Norse vowel.[38] Already in the Old Norse period, the double-peaked fortis was gradually being replaced by the single-peaked fortis; the double-peaked fortis survives only in monosyllables of the old dialects of Elfdal and Fårö.[39]

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[32] I have used the * here to indicate that this accent pattern is a forerunner of the present-day Accent I and, apparently, differs from the present Accent I in terms of both the expiratory and musical elements.

[33] Axel Kock (1890-91), p. 371.

[34] ibid., p. 373.

[35] Axel Kock (1901), p. 116.

[36] This terminology is somewhat confusing, since one is wont to assume it refers at least partially to musical pitch, which Kock does not intend. Kock seems to treat expiratory intensity and musical pitch as separate rather than related phenomena.

[37] A single-peaked fortis is thought to have been original to all Indo-European and Proto-Germanic monosyllables, but these will have quickly adapted themselves to the Norse pattern. (See: ibid.)

The type of *musical accent* associated with Common Old Norse *Accent I is something which Kock believes to be not accurately reconstructable.

> Die musicalische acc. von wörtern mit der acc. 1 ist in den verschiedenen neunord. sprachen und mundarten so wechselnd, dass über die musicalische acc. solcher wörter in der alten sprache kaum etwas mit bestimmtheit gesagt werden kann. . . . In [vielen schwedischen] dialekten liegt . . . die fortissilbe höher als die folgenden silben. . . . Das norw. weist nach dem östländischen dialekt z. b. in *sol* 'sonne' eine steigung von einer terz oder quart auf; in *solen* 'die sonne' liegt die ultima eine terz oder quart über dem anfange der paenultima. . . Nach Verner findet sich im dän. z. b. bei *maler* 'maler' auf der paenultima ein aufsteigendes portament von ungefähr einer quinte, während die ultima denselben niedrigen musicalischen ton hat wie der anfang der paenultima.
>
> Vielleicht könnte man, auf das angeführte gestützt, annehmen, dass die fortissilbe in wörtern mit der acc. 1 in der gemeinnord. sprache aufsteigendes portament oder einen combinierten accent, aus einem tieferen und einem höheren ton bestehend, hätte.[40]

In contrast to the *Accent I, Common Old Norse words accentuated with an *Accent II were those which had retained the vowel which immediately followed the root syllable and had carried an *expiratory* secondary accent (*biakcent*) in

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[38] See: Axel Kock (1884-85), p. 444 ff. and Axel Kock (1901), p. 106-7.
[39] Axel Kock (1901), p. 118 ff.
[40] ibid., p. 103-4.

Proto-Norse, for example O.N. *steinar* (← **stainōR*), *heitinn* (← **haitinaR*), *dagar* (← *ðăɣōR).[41] Kock assumes the continuation of the Proto-Norse secondary accent on the post-radical syllable in Common Old Norse. He terms this accent *levis* and describes two types of different origins. In words with long root syllables like *steinar* and *heitinn*, the Common Old Norse *biakcent* is described as *weak levis* and is a reflex of the expiratory secondary accent which was associated with the post-radical syllable of these words in Proto-Norse.[42] In words with a short root syllable (*dagar*, *farinn*), the post-radical syllable was more forcefully accentuated with *strong levis*,[43] which was the weakened form of a fortis accent that marked the end syllable[44] of such words in Indo-European. Alternatively, the expiratory *biakcent* could have arisen, regardless of root syllable length, from a process of *tillbakakastning* after the loss of a vowel in the third syllable in Proto-Germanic or (Early) Proto-Norse. The loss of this vowel would have given the second (i.e., post-radical) syllable a *double-peaked expiratory accent* and a *combined musical accent*, and furthermore lengthened it, if it was not already long.[45] For example: Gmc. *bindomiz* → P.N. **bindōm* with secondary stress on the *ō*, Gmc. **sōkīzi* → P.N. **sōkīR* with secondary stress on the *ī*.[46] Kock associates the presence of the Common Old Norse secondary accent with a high musical tone (*acutus*); the tone which often co-occurs with *levis* (weak stress) in his writings.

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[41] Axel Kock (1890-91), p. 374.

[42] ibid.

[43] Kock also refers to this as *semifortis*.

[44] Kock says "på ändelsen", which he seems to use in a very general meaning elsewhere. It is not completely clear whether he means the I.E. stress was actually on the ultima or the post-radical syllable, which, of course, would be the end syllable (ändelse) of a two-syllable word.

[45] Axel Kock (1901), p. 116.

The *root* syllables of Common Old Norse *Accent II words carried a two-peaked fortis *expiratory* accent if that syllable was long, a single-peaked fortis if it was short. In the case of long root disyllables, the root carried the musical accent *medius + gravis* (mid + low tone) and the ending *acutus* (high tone), whereas short root disyllables had *medius* on the root and *gravis + acutus*--or later only *gravis*--on the ending.[47] This accentuation pattern for *Accent II words was changed in transition from Common Old Norse to Modern Scandinavian by the lengthening of short roots (i.e., the so-called Great Quantity Shift: O.N. *făra* → Modern Norw. *fāre*) in the latter part of the fifteenth century.[48]

> Nachdem die ursprünglich kurzsilbigen wörter (*spini* 'zitze', *kolare* 'köhler') dieselben quantitätsverhältnisse bekommen, welche die ursprünglich langsilbigen (*tīme* 'stunde', *dōmare* 'richter') hatten, schlossen sie sich auch in ihrer acc. den weit zahlreicheren langsilbigen an. D. h. *spēne* (ält. *spini*), *tīme*, wie auch *kōlare*, *dōmare* hatten während der zweiten hälfte des 15. jhs. auf der ersten silbe zweigipfligen fortis, vereint mit medius + gravis; auf der zweiten silbe schwachen levis, vereint mit acutus; *kōlare*, *dōmare* auf der dritten silbe levissimus, vereint mit einem unbestimmbaren musicalischen accent.[49]

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[46] ibid.
[47] ibid., p. 117.
[48] ibid., p. 120.
[49] ibid.

Most present-day Swedish and Norwegian dialects that underwent lengthening preserve these fifteenth century conditions with two minor changes: (1) the simplification of the double-peaked fortis expiratory accent to a single-peaked fortis and (2) the shift of the combination *levis + acutus* to the final syllable in all Accent II words, so that trisyllables lost the *levissimus* on the ultima.[50]

Kock's theory claims to account for the present-day accentual conditions on a large number of Swedish words. Like the other theories, however, it has a number of exceptions. Above all, there are a large number of polysyllables which have Toneme II instead of Toneme I as predicted by the theory.[51] Kock attempts to even out such incongruencies with a widely applicable, 'blanket' reference to analogy:

> Auf dem wege der analogie haben grosse mengen zwei- und mehrsilbiger wörter, die in der älteren sprache die acc. 1 hatten, diese mit der acc. 2 vertauscht, weil letztere der mehrzahl zwei- und mehrsilbiger wörter zukam.[52]

The plausibility of this statement rests in the fact that syncopation will have greatly increased the number of monosyllables, which all became associated exclusively with Accent I. If the majority of Common Old Norse polysyllables, on the other hand, had Accent II, then one might expect this accentuation to spread by such mass analogy to those that did not, and one wonders why there are no dialects in which

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[50] ibid., p. 120-1.
[51] The so-called "syncopated comparatives", discussed later, are a case in point here.
[52] Axel Kock (1901), p. 120.

Accent I has been eliminated from polysyllables altogether.

2. Magne Oftedal: Old Scandinavian and Epenthesis

One of the main problem areas in Axel Kock's theory concerns the accentuation of the so-called "syncopated comparatives"--comparative forms such as Norwegian *mindre*, *større*, *eldre*, *yngre*, *betre*. These syncopated comparatives are presumed to have originally had the suffix **-iRā* in Proto-Norse, but lost the post-radical *-*i*- during the Syncopation Period; they are an exception to the regular comparative forms in Norwegian and Swedish which end in *-ere* and *-are*, respectively, are at least trisyllabic and always carry Toneme II. Kock's theory predicts Toneme I for the syncopated comparatives because of the syncopation of this post-radical *-*i*-. Toneme I is, in fact, found on syncopated comparatives in a large number of Central Norwegian and Swedish dialects, so that Kock assumes it to be the original accentuation for such forms.[13] Incidences of Toneme II in other dialects are accounted for by reference to the above analogical explanation--specifically by analogy with other (regular) comparative forms.[14]

Using the results of his own dialect survey, Magne Oftedal noted that Toneme I is not as widespread in syncopated comparatives as Kock believed it to be. Oftedal found a number of dialect regions with Toneme II or an alternation between the two tones on this class of words, notably around the fringes of the Norwegian-Swedish speech area.[55] Following the principle of dialectology that central regions are most often innovative areas and older forms tend to be preserved more in the fringe areas of a linguistic community, Oftedal concludes that Accent II is the original accentuation of the syncopated comparatives and that it is Accent I which developed analogically--by analogy with adverbial comparatives that were monosyllabic in Old Norse (e.g. O.N. *heldr* 'rather', *verr* 'worse', *minnr* 'less') and became disyllabic only through epenthesis in the Old Scandinavian Period.[56] By thus exposing a significant group of words which does not fit the development assumed by Kock's theory, Oftedal hopes to disprove it.

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[13] Axel Kock (1884-85), p. 450.
[14] ibid.

Oftedal also cites the presence of Accent II on syncopated weak preterite forms as strong evidence against Kock. We are concerned here with the preterite forms of the class I weak (ja- and ia-conjugations) such as O.N. *dœmði* ← **dōmidō* or O.N. *valða* ← **walidō*, a very large group of weak verbs which lost the vowel of the penultimate syllable during the Syncopation Period, but do not exhibit Toneme I in Modern Scandinavian (see: Table III in Appendix under Weak Verbs, Class I). Since Kock's theory predicts Accent I for these forms, he assumes this to be the original accentuation,[57] and the development of Accent II on all these preterites is attributed to analogy.

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[55] Magne Oftedal, p. 212-13.
[56] ibid.
[57] Axel Kock (1901), p. 107.

Oftedal identifies the only type of analogy conceivable here to be pressure of pattern:[58] Non-syncopated class II and III weak preterites--both of which have Accent II by Kock's theory and in Modern Scandinavian--would have had to be so frequent or prominent as to impose their accentuation on the syncopated preterites. However, through reference to Einar Haugen's *Norwegian Word Studies*, a study of word frequencies in Old Icelandic texts, Oftedal has determined that the frequency of syncopated weak (class I) preterites is far greater than that of the non-syncopated class II and III weak preterites combined. The conclusion is then that the class I weak preterite forms never did have the Accent I as claimed by Kock, but rather that the accentuation of these forms has always been Accent II.[59]

Having illuminated some shortcomings of Axel Kock's theory, Oftedal advocates a different theory which takes the Old Scandinavian Period (900-1400) as its starting point. The theory postulates an accentual distinction between monosyllables and polysyllables that developed when many of the old monosyllables were made disyllabic through the addition of the enclitic definite article or the development of an epenthetic vowel.[60] In other words, by the late Old Scandinavian Period, the old monosyllables--many of which were now disyllabic--were identified as old monosyllables by the presence of Accent I. All other polysyllables had Accent

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[58] Magne Oftedal, p. 216.
[59] ibid., p. 218-19.
[60] ibid., p. 205.

II.

Oftedal places prime importance on the fusion of the enclitic definite article with monosyllabic nouns in the development of the accent distinction:

> The distinction between two word accents probably came up when the enclitic article lost its status as a free morpheme (demonstrative pronoun) and became part of the word it determined, and as an immediate effect of this fusion. The process must have taken place after the development of the article (tenth century) and before the oldest literary records (late 12th century).[41]

The accent distinction is thus given the function of acoustically differentiating such pairs as Old Norwegian *'veginn* (def. masc. acc. sg. 'the way') and *"veginn* (masc. nom. sg. of participle 'weighed'), *'brotit* (def. neut. nom. sg. 'the break') and *"brotit* (neut. nom. sg. of participle 'broken').[42] Before the time of fusion of the enclitic article, Oftedal believes that Scandinavian accentuation served the function of signalling word boundries: "all polysyllabic words in this period had the non-distinctive accent that later became Accent 2, while all sequences of one stressed syllable plus one or more stressless or weakly stressed syllables not belonging to the same word had the accentuation which later developed into Accent 1."[43]

3. Tonemes as Reflexes of Indo-European Accentuation

Oftedal's explanation of the origin of the accent distinction leaves something to be desired in that it places a lot of importance on the function of tonemes as 'disambiguators', when we know that the functional load of the tonemes in this respect is very low.[64] The apparent disjunct operation of stress and pitch in Modern Scandinavian[65] leads Murat Roberts to believe that these dynamic and musical elements have different origins and independent causes:[66]

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[41] ibid., p. 221.
[42] ibid., p. 220.
[43] ibid., p. 221.

> Such an antagonism between stress and pitch can only have arisen through the superimposition of successive systems. A new accent developed before the older one had disappeared. Having different causes and different functions, the two accents did not harmonize. In Scandinavian, besides this intertanglement of archaism and innovation, another complicating factor enters the equation. This is the effect of syncope and apocope. Loss of a syllable regularly throws the musical accent back into a position where it did not at first belong.[67]

The origin of Germanic dynamic root accent can be easily explained as the application of sentence principles to the structure of a word--cardinal elements (i.e., important words and syllables) naturally attract dynamic stress--whereas the musical accent, according to Roberts, defies such a rational explanation. Since "old phenomena can be preserved after they have beome functionless," but "new phenomena must do something useful to warrant their genesis,"[68] Roberts reckons the Scandinavian musical accent to be the older of the two accent phenomena. It is a type of accent preserved through "meaningless tradition" from a

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[64] See: Chapter II, p. 15.
[65] See: Chapter II, p. 9-10.
[66] Murat Roberts, p. 178.
[67] ibid., p. 176.
[68] ibid., p. 178.

Pre-Germanic period--from Indo-European, which is thought to have had a musical accent.

> According to the consensus of opinion, Indo-European, whence Swedish is derived, had a musical accent. If such an immemorial process as the ablaut can be continued by obstinate tradition, it is logical to attribute to the accents an analogous conservatism. But it is plain that, if the Indo-European accent has survived in Swedish, it has sunk to an inferior position. Overpowered by the dynamic accent, it remains no longer dominant, but a subdominant feature. Like a dynasty deposed but not extinct, it lives on in the shadow of its ancient hegemony, without spontaneous life or determinable significance.[69]

If the musical accents of other European languages, like Lithuanian and Serbian, are not modern developments, but rather have a definite Indo-European origin, then it is very likely that the Scandinavian tones are descended from that same ancient source.[70]

Roberts stresses the idea that natural, historical change occurs in gradation; it is not often the case that one system is abruptly abandoned and replaced by a new one. With this in mind, he describes the development of accent in the Germanic languages in terms of three phases.

In the earliest phase, "Germanic I", the accent of each word is assumed to have been still in its arbitrarily designated Indo-European position, an assumption which is supported by the effects of Verner's Law.[71] Roberts believes that the accent system of Germanic I was predominantly musical, but yet also had acquired some expiratory quality:

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[69] ibid., p. 178-9.
[70] ibid., p. 189.
[71] ibid., p. 184.

> . . . since the voicing of voiceless spirants, according to phonetic experiments, happens most easily and most frequently in the unaccented syllables of an expiratory system, we must assume that in Germanic I the accent had become, at least in some measure, expiratory in quality. The probable origin of the consonant shift from augmented expiration strengthens this assumption.[72]

Roberts establishes the predominance of the musical accents (acute and circumflex) by the fact that the weakening and loss of syllables not bearing an Indo-European accent did not occur in Early Germanic. The loss of such syllables would be the expected consequence of a dominant expiratory accent.

In the second phase of development, "Germanic II", the dynamic *fortissimus* became fixed on the root or first syllable of each word, causing the Indo-European high musical tone--now a uniform *altissimus* produced through the coalescence of the former acute and circumflex--to gravitate from its previous position towards the end of the word.[73] In other words the *altissimus* always came to rest on the final syllable of a word, where it is still found in both of the Modern Norwegian tonemes.

> . . . the trisyllable may be taken as the foundation of the accent pattern. The dynamic *fortissimus* struck the first syllable, the musical *altissimus* the last. The middle syllable, the hollow between the hills, lost all accent. It was spoken with low tone and weak stress. If this intermediate syllable had previously possessed high pitch under the Indo-European system, that elevation was now lost. The immediately preceding dynamic accent overwhelmed and extinguished the tone. It is a law of rhythm that a great exertion of power must be followed by a

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[72] ibid.
[73] ibid., p. 185.

> relaxation of power. But on the final syllable, where the dynamic stress could not exercise so deleterious an effect, the primordial *musical accent* was maintained as a sharply rising tone.[74]

Primitive Germanic is assumed to have had mostly disyllables and trisyllables, so that such an accent pattern would have been easy to sustain. Later, when the expiratory or dynamic accent became dominant, syncope and apocope resulted, and many of the old disyllables (like *stainaR*, *dagaR*, *gastiR*) became monosyllabic (Swed. *sten*, *dag*, *gäst*). In such instances, the *altissimus* of the final syllable was "moved back into the surviving portion of the word", resulting in the formation of the simple accent or Accent I.[75] The same phenomenon is exemplified in Modern Swedish by the fact that the monosyllabic forms of the words for 'father' and 'mother', *far* and *mor*, have the Accent I, whereas the older, disyllabic forms *fader* and *moder* are spoken with Accent II.[76] Assumedly, then, the polysyllabification of monosyllables through epenthesis or the addition of enclitics in the Old Scandinavian Period (900-1400) did not affect the musical accents which had developed on these words.

According to Roberts' scheme of development, Norwegian and Swedish preserve, more or less,[77] the accentual conditions of "Germanic II", his intermediate period. The other Germanic languages passed through a third phase, "Germanic III", in which the expiratory or dynamic accent became completely dominant and forced the oxytone musical accent into extinction.[18]

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[74] ibid.

[75] ibid., p. 186.

[76] ibid., p. 182-3.

[77] Roberts assumes a process of *tillbakakastning* in the case of Swedish, whereby the oxytone musical peak was cast back to the penultimate syllable. (cf.: Chapter II, p. 7.)

Roberts was not the first to posit a link between Indo-European accent and the Modern Scandinavian word tones; his theory is, however, one of the more recent and highly developed of such theories. One of the first philologists to suggest such a link was Adolf Noreen. His theory, simply stated, claims that there is a direct relationship between the position of the Indo-European accent and the Scandinavian Accents I and II. Indo-European words with an unaccented final syllable are reflected by the Scandinavian words that bear Accent I. As examples, Noreen asks us to compare O.I. [′]*stîgr* and Gk. *στείχεις* ('thou goest'), O.I. [′]*betre* with Gk. *γάσσων* ('better').[19] On the other hand, Scandinavian words bearing Accent II received that musical accentuation from Indo-European final syllable accent (*Ultimabetonung, Endbetonung*): We are invited to compare O.I. 1 pret. pl. ["]*buðom* with Sanskrit *bubudhimá* ('we bade') and O.I. past part. ["]*bitenn* with Sanskrit *bhinnás* ('bitten'). Noreen assumes a shift of the expiratory accent ("a throwing back of the principal accent") to the first syllable in Germanic, but with the preservation of a secondary accent (*Nebenton*) on the originally accented ultima and the retention of a high musical pitch on that syllable.[80] He backs up the assumption with the statement that Old Norse syncopation did not take place in those syllables which were accented in Indo-European; the pret. plurals *buðu* and *bjödo* retained their second syllables, whereas the preterite singular forms, never having had accented finals, did not.[81]

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[18] Murat Roberts, p. 186.

[19] Adolf Noreen (1899), p. 372.

It is curious that Noreen uses Old Icelandic examples to represent the Modern Norwegian and Swedish word tones. Obviously, he assumes that Old Icelandic once had tonal accents, but lost them in the course of time. Indeed Noreen's Old Icelandic words can be found in Modern Norwegian and Swedish with the tones he indicates for them. It is, however, to be noted that the comparative *betre*, used here as an Accent I word and an example of an Indo-European accented ultima, does not, as pointed out by Oftedal, have the Accent I in all dialects; in fact, Accent II may be original to this word.[82] Furthermore, the secondary accent which Noreen claims for O.I. *bitenn* has not hindered syncope. In fact, the Proto-Norse **bitenaR*, which would have been accented on the ultima according to Noreen's theory, has undergone syncope, a process which, he says, is prevented by the presence of accent.

Despite the shortcomings of Noreen's examples, his ideas did help to foster theories such as Roberts' and that of Eric Hamp, who also firmly maintains that "the only way a

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[80] ibid.
[81] Adolf Noreen (1913), p. 93.
[82] See: Chapter III, p. 24-5.

Germanic form could inherit a final syllable secondary accent"--which resulted in Accent II--"was by bearing a superfix descended from an Indo-European final primary (either acute or circumflex)."[43] It is especially interesting to note that Axel Kock, who essentially attributes the Scandinavian tone distinction to developments in Late Proto-Norse, dismisses Noreen's theory as incorrect,[44] but at the same time also attempts to accommodate the possibility of an Indo-European basis for Scandinavian accentuation as a way of explaining the origin of his Proto-Norse *biakcent*:

> Så vitt jag ser, finnes intet hinder för att med min ovan utvecklade teori för de två nordiska akcentueringssättens upphov för min . . . framställda åsikt att den biakcent, som redan i urgerm. tid tillkom ändelsevokaler, utgör en reduktion av den på ändelsen hvilande indo-eur. fortis.[45]

Tassilo Schultheiss also theorizes along the same lines as Noreen, but he draws Verner's Law into the scheme. He posits two Indo-European accentual patterns: (1) a high-low tone pattern (ˉ_) with an accented root syllable (*Stammsilbe*) and an unaccented final syllable and (2) a low-high tone pattern (_ˉ) with an unaccented root and an accented final syllable. Of these two patterns, Germanic formed a rising-falling (´`) tone out of the former and a falling-rising (`´) tone out of the latter.[46] As examples, Schultheiss cites I.E. **khāpos* ˉ_ → Gmc. **hṓfaz* ´`, I.E.

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[43] Eric Hamp, p. 43.
[44] Axel Kock (1901), p. 114.
[45] Axel Kock (1890-91), p. 371.
[46] T. Schultheiss, p. 251.

*sthətos _¯ → Gmc. *staðas `´, drawing attention to the fact that the voiced fricative ð, attributed by Verner's Law to the presence of a stress on the following syllable, co-occurs with the point of lowest tone.[57] The low tone is assumed to precipitate the voicing phenomenon.

> Es ist eine unverbrüchlich sichere Erkenntnis der Phonetik, dass die stimmhaften Laute einen tieferen Eigenton besitzen als die stimmlosen Laute, und die innere Verwandtschaft zwischen der Tiefstelle im Wort und den stimmhaften Lauten, also die Neigung des Urgermanischen, solche stimmhaften Laute [also ƀ, ð, ǥ] dort einzusetzen, wo die Stimme den Tiefpunkt erreicht, ist eine nur allzu verständliche Angelegenheit.[58]

Schultheiss maintains that the accentuation of Modern Swedish is a "Fortsetzung der oben angenommenen urgermanischen Verhältnisse."[59] Swedish *söner* `´ ('sons') ← I.E. \*sūnéwes _¯, Swed. *kommer* ´` ('comest') ← I.E. *gvémesi ¯_, Swed. *nätter* ´`` ('nights') ← I.E. *nóktes ¯_ are some of the correspondences he lists.[60] The main problem with this and all of the other theories that attempt to trace Scandinavian accent back to Indo-European is a lack of exemplary evidence. The number of words and categories in which an accent correspondence can be found is not really extensive enough to explain a majority of instances of Accents I and II. The Germanic singular ō-stems are a good example of a category in which Indo-European final accent, Schultheiss' _¯, is assumed, but yet no correspondence with

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[57] ibid., p. 252.
[58] ibid.
[59] ibid., p. 253.
[60] ibid.

Scandinavian Accent II is found.[11] Such exceptions usually precipitate as explanations 'blanket' references to analogy that often have no solid or plausible reasoning behind them.

4. Other Theories: Kuryłowicz, Ekblom, Liberman

There have been a number of other theories about the origin of the Scandinavian tonemes--some of them reinterpretations of the above, some of them quite different and innovative, and some of them rather obscure. Of these various theories, there are at least three that I believe must be mentioned even in a brief survey such as this, namely those of Jerzy Kuryłowicz, Richard Ekblom and Anatoly Liberman.

Kuryłowicz seems to regard Accent I more or less as a normal accentual pattern and devotes his attention to the development of Accent II. He proposes that Accent II, a double accent, originated in Proto-Norse compounds of the type _*bōkstaƀaR_, where, through the combination of two words, each bearing its own stress, a word with a double stress resulted.[12] (Each dynamic or expiratory stress must have been associated with a rise in pitch.) An accentual merger then took place between such compounds and non-compound words with a long second syllable, spreading the double accent through the language from nouns to verbs and adjectives of this description. The addition of the secondary accent may have occurred as a compensatory feature when the long second syllable of such words was reduced: e.g. **kallōðaR* → **kállàðaR*.[13] Syllables which did not acquire the secondary accent, i.e. original short syllables, could later fall victim to syncope.

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[11] A polysyllable is not even maintained (apocope not prevented) in this case.

[12] Richard Ekblom (1938) commenting on the work of Kuryłowicz, p. 161.

Richard Ekblom raises three important points with regard to Kuryłowicz' theory. First of all, increased stress is usually associated with the retention of a long syllable, decreased stress with syllable reduction; compensatory accentuation on a weakened syllable would be extremely unusual.[14] Secondly, Accent II is found in a number of words where there has been no shortening of the second syllable, such as the present participles (**bītande* → O.N. *bitandi* → M.Norw. *bitende*).[15] And thirdly, compounds of the type **bōkstaƀaR* were too few in number to have exerted such a great influence on accentuation.[16]

Ekblom seems to have gained some insights by Kuryłowicz' drawing attention to long second syllables. Ekblom sees the length of the second syllable of non-compounds in the Late Proto-Norse period as the primary factor in determining the type of accent which would develop on a given word. He believes the accent differentiation arose through the opposition between the stress in a long, non-principally accented ("icke huvudtonig") syllable and the stresslessness of short penultimate or ultimate vowels which later tended toward syncopation.[97] Like Axel Kock, Ekblom can divide Proto-Norse vocabulary into two groups: one group with a long post-radical vowel and the other with a short post-radical vowel, and so conclude that the words in which the short vowel was syncopated received Accent I. The difference is that Ekblom emphasizes *syllable length and its relative stress* as the causal factors rather than syncope.

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[13] ibid.
[14] ibid., p. 163.
[15] My example.
[16] Richard Ekblom (1938), p. 163.

So, Accent I established itself in those Late Proto-Norse words where the syllable after the principally accented one was short and had very low stress: e.g. Swed. *gläder* ← **glaðiR*, *längre* ← **langiRā*. Accent II developed in those Late Proto-Norse words in which that second syllable was long: e.g. Swed. *tìdér* ← **tīðīR*, *kàllád* ← **kallōðaR*, *fùllåre* ← **fullōRā*.[98]

Ekblom compares the stress and length conditions of Proto-Norse **gastiR:*gastìR* with English *fìfty:fìfteèn*, but words of the **gastìR* type must have had a lowering of tone occurring between the middle of the first syllable and the syllable boundary,[99] supposedly to prepare for the rise in tone associated with the stress of the long second syllable.[100]

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[97] ibid., p. 170.
[98] ibid., p. 171.
[99] ibid.
[100] I assume this is what Ekblom is thinking of when he calls this phenomenon "ljudfysiologisk". See: ibid., p. 172.

More plausible than Kuryłowicz' is Ekblom's belief that the accentuation of compound words came as a result of the patterns established on non-compounds. He believes a type of accentuation like English "even stress" was original to compounds, and with the development of the two accents on simple words, compounds adapted themselves to either the Accent I or the Accent II pattern.[101] Furthermore, in accordance with the established low functional load of the present-day tonemes (see: Chapter III, p. 14-15.), homonimity and its prevention played no role in the accentual development of Scandinavian.[102]

Anatoly Liberman's explanation for the origin of the two word tones differs essentially from all of those we have examined so far. He regards the opposition *stød*:non-*stød* as the original one in all the Scandinavian languages, and believes that the opposition Accent I:Accent II sprang up later and "overlay the original units".[103] In other words, *stød* and non-*stød* were gradually ousted by Accents I and II, a theory Liberman feels is supported by the evidence that there exist dialects (North Sjælland, East Funen) where the two types of accent phenomena exist side by side.[104]

Because the distribution of the accent phenomena is fairly uniform throughout the Scandinavian linguistic territory, and even the exceptions are very similar, Liberman sees the accent phenomena everywhere as adhering to the so-called "number-of-syllables rule". Thus, to trace the history of accent development means to trace the development of the number-of-syllables rule. If the rule was functionally determined, then it must have come into being when the number of syllables in a word was significant, when it was necessary to "juxtapose mono- and polysyllables".[105] This would have been during the period of free apocope (Syncopation Period), and so Liberman posits the number-of-syllables rule as a reaction to apocope.

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[101] ibid., p. 175.
[102] ibid., p. 171.
[103] A. S. Liberman (1976), p. 2.
[104] ibid., p. 5.

The historical nucleus of apocope is the group of disyllables ending in *-e* and containing a long sonorous sound.[106] Liberman reconstructs words with long sonorous bases as originally having bimoric nuclei and--regardless of the number of syllables--containing the *stød* as a marker of their bimoric length.[107] Because of the correspondence here, it may be assumed that apocope began with words containing the *stød*.[108] After the loss of endings through free apocope, the *stød* was left in words that were almost exclusively monosyllabic, so that it came to be recognized as a marker of monosyllables. Non-*stød*, by contrast, came to mark polysyllables.

In the course of time, the phonetic realization of non-*stød* changed in certain areas, so that it acquired a strong second peak, giving rise to Accent II: Accent II may be viewed as "a by-product and an agent of the number-of-syllables rule".[109] Because the *stød* was "ill-suited" for the role of the unmarked partner of Accent II, Accent I sprang up and began to rival--and eventually replace--the *stød* in monosyllables. Liberman regards the *stød* as being doomed in any case, and in Norway and Sweden its elimination came about as he describes.

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[105] ibid. p. 3.
[106] ibid.
[107] Liberman assumes the Germanic languages to have once been mora-counting.
[108] A. S. Liberman (1976), p. 4.

In some dialects with both Accent I and *stød*, the two phenomena are observed to be phonetically very similar indeed.[110] In the development of Norwegian and Swedish accentuation, one could envision a similar process, where the *stød* began to acquire musical features until it merged with a tonal contour. Thus, Liberman attributes the complete elimination of the *stød* to two main factors: (1) the loss of the *stød*'s original mora-counting function through the coalescence of long and short bases in the Great Quantity Shift, (2) the acquisition of a new function for the *stød*, namely syllable counting, and the rise of a new prosodeme (Accent II), with which the *stød* was not compatible, to fulfill this function.[111]

Liberman explains the retention of the *stød*:non-*stød* opposition in Danish in the following way. In original monosyllables, the retention of the *stød* depended on the development of Accent II. If a "marked Accent II" did not develop, as in Standard Danish, the *stød* underwent no change. Accent I develops as a counterpart to a "well-rooted" Accent II because the *stød* is "unfit" as such a counterpart.[112]

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[109] ibid.
[110] ibid., p. 13.
[111] ibid.

Liberman's theory is certainly very innovative and complex. He has illuminated Scandinavian accentuation from a new and valid perspective, especially as far as Danish is concerned. But Liberman is more function-oriented than the other theorists; he attaches phonetic reality onto function. The continuous thread is the rule, by which the theory stands or falls. The phonetic or phonological expression of the rule can be judged by what we can reconstruct for the earlier periods. This is an understandable order of priorities, but to one who is disposed to begin with phonological reconstruction and deduce, if warranted, rules of grammar, Liberman's procedure may seem only loosely motivated. For example, the motivation is not quite clear to me in his explanations of why apocope began in words containing the *stød*, how and why the *stød* acquired musical features and became Accent I. In my understanding, Liberman's theory seems to fall short of a positive proof in accounting for the musical rise on the ultima ("second peak") characteristic of the non-*stød* accent pattern (Accent II) in Norwegian and Swedish. I feel more confident building on some of the long-standing ideas of Kock, Ekblom et. al., as we shall see in the following chapter.

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[112] ibid., p. 26.

IV. The Present Theory

General Remarks

The reader will likely have noticed that, among the theories outlined in the previous chapter, two theories received no negative criticism. They seemed more straightforward and attractive than the others because they avoided the inconsistencies of relying heavily on syncope and the overemphasis of the function of tonal contrast. These are namely the theories of Roberts and Ekblom.

Roberts' idea about natural linguistic change occurring in gradation provides a logical perspective for looking at the development of accent. His conclusion that the functionless nature of the present-day musical accent is an indication of its greater antiquity[113] is also well taken. Other Indo-European theorists such as Noreen, Schultheiss and Hamp have relied on examples of correspondences between Scandinavian Accent II words and Indo-European suffix accent, but the range or lexical completeness of such examples, as already mentioned, does not seem thorough enough to convince one absolutely of the proposed Indo-European origins. Often complicated re-explanations or reinterpretations of Indo-European accentuation patterns must be devised in order to deliver more and more accurate correspondences, such as is done by Eric Hamp,[114] and the added complexities seem to detract from the overall straightforwardness and credibility of the Indo-European theory. Roberts eliminated the need for such examples by simply allowing the Indo-European musical accent to "gravitate", through the imposition of dynamic root accent, without exception to the end of the word. But this approach, although much easier to follow and comprehend, seems unmotivated and perhaps too simplistic. The non-availability of any kind of exemplary support is also quite disconcerting, but my main objection is that I do not believe that one can legitimately make the assumption that the musical elements of Scandinavian accent--or, more precisely, the musical rise on a post-radical, currently dynamically unstressed syllable of Accent II--are definitely and entirely survivals of an Indo-European accent system. The facts have not been investigated in their entirety.

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[113] See: Chapter III, p. 28.
[114] See: Eric Hamp (1959).

If the presence of dynamic or expiratory accent is generally associated with a high pitch or pitch rise (see: Chapter II, p. 10), then we cannot exclude the possibility that Accent II might be due to some accentual developments in Germanic in the progression from movable to fixed root accent, and that the expiratory and musical accents may be developmentally related.

Most Indo-European theorists along with Axel Kock have seen the presence of a post-radical secondary stress or *biakcent* in Proto-Norse as being responsible for the development of Accent II on certain words. Ekblom was the first to recognize a connection between this increased post-radical stress and long syllables, so that Accent II could be derived in words with a long *second* syllable. Such an association is a very attractive idea indeed, but Ekblom does not seem to have taken it quite far enough. We note that Ekblom explains the Accent II on Swedish *"hördom* (← P.N. **hauRiðōm*) as analogy with words of the type *"kallade*, claiming that *"hördom* must have originally had Accent I because of the short second syllable in Proto-Norse.[115] Similarly, Ekblom assumes Swed. *'längre* to have its Accent I because of the short second syllable in Proto-Norse **langiRā*,[116] even though we know that Accent II is likely original to this word because of its attestation in several of the fringe areas of Scandinavia.[117] In both cases, Ekblom seems to have overlooked the obvious long ultima and the possibility that the length of other post-radical syllables--not just the *second* syllable--may play a determining role in the development of Accents I and II.

Richard d'Alquen: Syllable Weight and Accent

In *Germanic Accent, Grammatical Change and the Laws of Unaccented Syllables*, Richard d'Alquen puts forth a new theory to interlock the explanations of the development of accent, Verner's Law and unstressed vowels in the Germanic languages since Proto-Indo-European; a new theory of the origin of Accent II is indicated in rough outline as the by-product of a wider ranging view of accent development in Germanic. Like Roberts, d'Alquen rejects the idea of a sudden, early change from the movable Indo-European accent to Germanic dynamic root accent in favour of a more gradational, evolutionary change.[118] This gradual shift has as its motivating factor the attraction of accent to heavy syllables.

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[115] Richard Ekblom (1938), p. 166.
[116] ibid., p. 171.
[117] Magne Oftedal, p. 212-13.

D'Alquen notes that in the evolution of the Germanic languages, certain post-radical syllables tend to be better preserved than others. He suggests "that the degree to which syllables were able to survive was connected with their weight".[119] Based primarily on syllable loss and preservation, d'Alquen has developed the following syllable weight typology which he employs throughout his monograph:[120]

Lightest	V
Light	VC (H as monosyl.) V̄ or diphthong (H as monosyl.)
Heavy	VCC V̄C or diphthong + C
Heaviest	V̄CC(C) or diphthong + CC(C)

D'Alquen considers a notion of Kuryłowicz' to be the important first step in the transition to root accent in Germanic. In the western Indo-European languages, it is noted that final accented short vowels are not permitted, so that in monosyllables such a vowel must be lengthened to retain its accent: **swa* → O.N. *svá*.[121] In disyllables, the inherited accent on a final short vowel would have to be retracted to the first syllable, leading to an initial accent which could then spread through analogy. Such a process could, however, only have affected a limited portion of the vocabulary; other important developments are necessary to complete the change to root accent.

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[118] Richard d'Alquen, p. 15.
[119] ibid., p. 16.
[120] ibid., p. 15.

In Pre-Germanic, accent-bearing syllables were often heavy.[122] D'Alquen finds that this association between accented and heavy syllable grew in Germanic, so that heavy syllables came to attract the accent.

> Heavy syllables require more energy than light. In the working hypothesis the extra energy was interpreted as applied to produce extra intensity, with the result that heavy came to mean accented, and long vowels in previously unaccented heavy syllables took on a rising-falling pitch to indicate two morae.[123]

This principle is illustrated by such accentual relics as German *Forélle*, *Holúnder*, *Wachólder* and *Affólter*, where the accented syllable is not the first, but rather the first originally heavy syllable.[124] According to d'Alquen, syllable weight is a kind of "inherent prominence", whereas accent is "transferable prominence": "In unsettled times accent may move away from inherently non-prominent syllables and onto prominent ones."[125] The final result of this growing association between heavy syllable and accented syllable is that heavy syllables become accentuated *regardless of whether these syllables carried the accent in Indo-European or not*. Thus Germanic ceases to reflect the Indo-European accent system.

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[121] ibid., p. 17.
[122] ibid., p. 21.
[123] ibid., p. 19.
[124] ibid., p. 23.
[125] ibid., p. 16.

In Germanic, monosyllabic heavy roots are in the majority,[124] so that one can well imagine the acquisition of accent on many root syllables in the above manner. But this attraction of accent by heavy syllables was, of course, not just limited to roots. Numerous words with heavy suffixes receive *suffix accent*, and those with heavy roots and heavy suffixes receive a *double accent*. If one views a root as indicating a basic meaning and a suffix as indicating an important function or an important component of meaning modifying that of the root, then one can envision the development of an association among *weight, accent* and *semantic content* which would ultimately lead to root accent.

Evidence

D'Alquen finds clear evidence of accent attraction to heavy roots provided in the strong verbs. Germanic forms such as **tîuhið* (3 sg. pres. ind.) and **tugúm* (1 pl. pret. ind.) from class II show an indisputable correspondence between heavy root (**tiuh-* = CV̂C-[125] = H) and accent, light root (**tug-* = CVC- = L) and the absence of accent. Certain irregularities in grammatical change in the pret. pl. and past. part. of strong verbs also support a theory which links syllable weight and accent. Classes I - III exhibit the following accent pattern if one accepts **bn̥d* or **wr̥þ* in class III, for example, as light, unaccented roots about the time of Verner's Law:[128]

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[124] ibid., p. 40.

[125] The diphthong is indicated here by V̂, as the two are considered of equal weight.

1(pres.)	2(pret. sg.)	3(pret. pl.)	4(p.p.)
H́-	H́-	L-́	L-́

A high incidence of the non-occurrence of expected grammatical change in class III, 3 and 4 can be explained by the accent being drawn from the ending onto the newly heavy root when Pre-Gmc. **bn̥d* and **wr̥þ* (CVC- = light) become Proto-Gmc. **bund*, **wurþ* (CVCC- = heavy).[129] Similarly in class V, 3, Gmc. **gēb* with a lengthened root is new. The change from light to heavy creates another cluster of irregularities here also.[130]

Grammatical change gives us indications of further correspondences between heavy syllables and the presence of accent. In classes II and III of the weak verbs, *ō* and *ē* as class marking long vowels make heavy suffixes which, as indicated by the presence of grammatical change, must have borne accent already in Pre-Germanic.[131] The heavy suffix for the preterite optative *-īC must also have borne accent in Pre-Germanic judging by grammatical change.[132]

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[128] ibid., p. 85, 232.
[129] ibid.
[130] See: ibid., p. 85, 91, 101.
[131] ibid., p. 33-4, 58.
[132] ibid., p. 35-6.

Accent markings in Old High German texts, especially the remarkable consistency of those in Notker,[133] also provide support for d'Alquen's theory. Here secondary accent markings are found to fall mostly on heavy syllables, such as the nominal suffix *-únge*, the adjectival suffixes *-êr* and *-îu* and the 1 pl. pres. ind. ending *-ên*, which d'Alquen sees as the remains of heavy suffix accent.[134] Three large categories of verb forms, namely *optatives*, *weak preterites* and *infinitives*, regularly show a marked suffix accent "as a sign of a shift from the basic function".[135] The derivative suffixes *-âre*, *-lîh* and *-îg* also frequently bear accent markings in keeping with this idea of markedness.[136]

Of course, textual accent markings show that by the Old High German period the trend toward single dynamic root accent was well under way, and the old double accent or suffix accent was in decline. Irregularities in the marking of some final syllables are a partial indication of this. For example, the unmarked, shortened forms *-ig* and *-lih* occur with high frequency after heavy roots, suggesting that the heavy root has drawn the suffix accent away.[137] The long *ē* of the class III weak verbs carries an accent mark only rarely, indicating that *ē* no longer marks a shift from basic function nor has any special semantic value and that single root accent is more appropriate. D'Alquen notes strong signs of the shift to single root accent also in class II weak verbs in the present indicative, probably under influence from the root accented strong verbs and in keeping with a loss of the original special semantic function of the *ē* and *ō* suffixes.[138]

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[133] Gustav Ehrismann, p. 426.

[134] Richard d'Alquen, p. 20, 23-4.

[135] This is the semantic content assigned to the originally purely phonological accenting of final heavy syllables. See: ibid., p. 25.

[136] ibid., p. 21-2, 25.

[137] ibid., p. 21.

The association of accent with heavy syllables and these various inductions of accent recession help 'build' the Germanic tendency to form new words with heavy, accented roots.[139] By the Old High German period, this tendency is already quite apparent: In Notker, compounds with *-únge*, for example, all have heavy roots.[140] But d'Alquen hesitates to claim that all roots were spoken with primary dynamic accentuation.[141] The gradual transition to single dynamic root accent went through its final stage only in the late Middle Ages, when the process of vowel lengthening in open syllables made the last of the light roots heavy.[142]

Pitch Patterns

According to studies in acoustic phonetics, the fundamental frequency of vowels has been found to be lower after voiced consonants than after voiceless ones. From this, d'Alquen infers that it would be natural for the pitch to start low and rise after Germanic *b, d, g, z*, but not so after *f*, þ, *X*, s.[143] If in the voicing phenomena termed Verner's Law the vowel following the voiced consonant is known to have been accented in Early Germanic, then it can be concluded that accented syllables in Germanic were originally marked by a musical rise.[144] Of course, voiced consonants have also been shown to be associated with low energy, voiceless consonants, on the other hand, with high energy, so that *musical pitch* and *acoustic intensity* rise and fall together.[145] D'Alquen posits that in Early Germanic accent, the rising musical pitch was the primary accentual feature, and the increase in intensity was secondary. The dynamic stress accent can then be seen as developing through a reversal of these roles, so that by Late Germanic high acoustic intensity is the primary feature and high pitch is secondary.[146] The role reversal was caused by the attraction of accent to heavy syllables, so that accent became associated with heaviness rather than pitch.

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[138] ibid., p. 25, 44.
[139] ibid., p. 232.
[140] ibid., p. 20.
[141] ibid.
[142] ibid., p. 232.

After this reversal of roles, pitch was no longer the chief indicator of accent, and it could therefore take on a new function--namely (in agreement with Liberman) that of distinguishing long and short vowels or counting morae. D'Alquen postulates that the rising pitch was used to mark accented short vowels, and a rising-falling pitch marked long vowels and diphthongs.[147] This rising-falling pitch was a Germanic innovation, perhaps introduced to allow accenting of previously unaccented heavy roots before originally accented suffixes: e.g. **dæ:ðî* → **dæ̂:ðî*.[148] The rise had to be combined with a fall in order to bring the pitch back to a low level in preparation for the rise on the suffix. The rising-falling pitch eventually became standard not only for long vowels, but for all heavy syllables--both roots and suffixes; and such a pitch pattern on heavy syllables comes to characterize Germanic dynamic stress. Accented light syllables must have continued with a type of accent not much different from Pre-Germanic: a rising tone, probably with increasing dynamic stress as time passed. It is this accent that Germanic excludes from final position.[149] A complete accentual unit seems to require a rise and a fall of pitch and/or intensity.

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[143] ibid., p. 17.
[144] ibid., p. 17, 30.
[145] ibid., p. 18. cf.: Chapter II, p. 10, Chapter IV, p. 45.
[146] Richard d'Alquen, p. 19.
[147] ibid.

Implications for Scandinavian Accentuation

D'Alquen's theory sees the origins of Scandinavian Accent I in Germanic single root accent, Accent II in Germanic suffix or double accent.[150] We note that d'Alquen takes much of his evidence in support of Germanic suffix or double accent from accent markings in Old High German texts. If the accent system of that time is reflected in the modern Scandinavian tonemes, then one should find certain categorical parallels between Old High German suffix accent and Toneme II words. D'Alquen has, in fact, found a number of these:[151]

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[148] ibid., p. 233.

[149] See: Chapter IV, p. 47-8.

[150] ibid., p. 229.

> (a) Accent II is found in many weak verbs of classes II and III, corresponding with a circumflex accented suffix in Notker.
>
> (b) Notker's agentive *-âre* corresponds with Swedish *-are*, Norwegian *-er*, which both carry Accent II.
>
> (c) Notker's dative plural *-ên* corresponds generally to the presence of Accent II on adjectives in the plural: Norw. *"gode*, *"gamle*.
>
> (d) OHG nom./acc. plural ō-stem *gebâ*, gen. and dat. *gebôno*, *gebôm* correspond to Swed. *"gåvor*.[152]
>
> (e) Notker's nom./acc. plural ōn-stem *zungûn* has the circumflex, and Swed. *tungor* has Accent II.
>
> (f) The OHG comparative suffix *-ôr-* corresponds to Swedish *-ar-* with Accent II.
>
> (g) OHG masc. nom./acc. plural a-stem *tagâ* corresponds to the Swedish plural *dagar*, which carries Accent II.
>
> (h) Though the distinguishing endings have disappeared through analogical levelling and the tonemes, therefore, have often changed in present-day Swedish, older Swedish showed an Accent II in the 1 pl. pres. ind. corresponding to the heavy OHG *-mes*, Notker's *-ên*, as well as in the 3 pl. pres. ind. corresponding to the accented OHG suffix *-ant*.

These correspondences are most striking, but d'Alquen does not develop the theory of the origin of Accent II any further. If we accept what d'Alquen has to say about the development of accent in Germanic and Old High German, we need only expand his ideas slightly to clarify the issue of the development of the Scandinavian word tones.

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[151] ibid., p. 229-30.

[152] Taking his information from Axel Kock, d'Alquen actually cites Swedish forms here which have long been out of use; I have substituted *"gåvor* because I believe it illustrates his point better with respect to contemporary relevance.

The overall picture is that while both dynamic intensity and high musical pitch were eliminated as accentual features on all but root syllables in most of the West Germanic languages, North Germanic--or at least Norwegian and Swedish--did not follow suit. It seems that they, while losing the dynamic element which must have once existed on accentuated post-radical syllables in Germanic, preserved the musical portion of that accentuation. In other words, where Germanic single root accent developed on a word *without* suffix accent, that situation is reflected by Scandinavian polysyllables with Accent I, in which dynamic intensity and high musical pitch concurrently mark the root syllable. But where Germanic retained inherited suffix accent or developed suffix accent or double accent because of a heavy ending, Scandinavian has preserved the high musical pitch of the accentuated Germanic suffix in the post-radical pitch rise of the typical Accent II contour; root accentuation is signified here by expiratory intensity on the root.[153]

As we have seen, the development of the higher energy, higher intensity rising-falling type of accent was crucial to the advent of dynamic stress. But since this rising-falling accent is best supported by a heavy syllable, then syllables that had to be marked by dynamic stress (i.e., the meaning-bearing roots) would have to be made heavy. This can be considered an impetus for medieval vowel lengthening in German,[154] which is neatly paralleled in Scandinavian by the *Great Quantity Shift*. More profound than in German, all syllables to be marked by dynamic stress in Scandinavian were made long either by lengthening of the vowel or gemination of the post-vocalic consonant. Since only root syllables were so lengthened, we can say that this represents the last crucial step in a long process to establish dynamic intensity as the marker of root syllables alone.

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[153] See: Chapter II, p. 8.

In some present-day Norwegian and Swedish dialects, the tonal curve for Toneme II does resemble that which d'Alquen posits for Germanic double accent, namely rise-fall plus rise-fall (see: Table I, Nos. 1-9, 38, 44-47, 65, 82, 83, 87, 94 and 98). But most descriptions of Toneme II emphasize the falling pitch in connection with the root and the, as Roberts put it, "disjunct" operation of stress and pitch in that the pitch rise occurs on the unstressed ending and not, as normally expected, on the stressed root.[155] If, however, as we have just said, Scandinavian chose dynamic intensity to mark only the root and still, at this point, wished to retain the "markedness" of certain endings, and the existing ultimate musical rise(-fall) became the marking device of choice here, then the pitch contour on the root syllable might well be expected to lose its relevance. If syncope reduces a word to two syllables and one still wishes to mark the ending by pitch, then quite naturally the pitch must fall on the stressed root in order to accommodate the final rise. Under such circumstances, this fall is the necessary tonal movement for the root.

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[154] Richard d'Alquen, p. 232.
[155] See: Chapter II, p. 9-10.

The weakening of final syllables caused by the establishment of dynamic root accent meant that most final heavy syllables were made light. However, d'Alquen's rise-fall contour requires a heavy syllable (or two light syllables) to support it. Since a light ending cannot support a rise-fall, and--for the purposes of markedness--the all-important rise must be preserved, the reduction of d'Alquen's Germanic rise-fall suffix accent to a simple rise is allowed,[156] and the postulated Germanic double accent is thus brought completely into line with our descriptions of the present-day Toneme II.

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[156] Swedish seems to have maintained an ultimate tauto-syllabic pitch fall according to our descriptions (see: Chapter II, p. 7-8).

V. The Analysis

General Remarks

D'Alquen himself would probably be the first to admit that many areas connected with his theory need further investigation,[157] but the theory does seem very promising not only because of the simplicity of its basic notions, but also because it ties several previously independently regarded developments in the Germanic language family together as related phenomena. Verner's Law and Scandinavian accentuation, for example, now appear as two related pieces of the whole picture of Germanic accent. D'Alquen's theory also builds upon some of the notions of other linguists which we have seen as important. Axel Kock's notion of the presence of a "biakcent" on certain post-radical long vowels in Early Norse and Richard Ekblom's ideas about the significance of long syllables are not cast aside by the new theory. Even Liberman's notion about the Germanic languages being "mora-counting" can be worked into d'Alquen's ideas on the use of two pitch types to mark long and short vowels.[158]

Based on these and other merits of d'Alquen's theory, we shall accept it here as a set of postulates to explain Germanic accentuation and investigate its viability for Scandinavian through an examination of the correlations between syllable weights in Proto-Norse and/or Old Norse and fall on the stressed root in order to accommodate the final rise. Under such circumstances, this fall is the necessary tonal movement for the root.

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[157] Richard d'Alquen, p. 231.
[158] ibid., p. 19.

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Based on these and other merits of d'Alquen's theory, we shall accept it here as a set of postulates to explain Germanic accentuation and investigate its viability for Scandinavian through an examination of the correlations between syllable weights in Proto-Norse and/or Old Norse and the present-day tonemes. We shall focus primarily on the accentuation of nouns and verbs. Compounds[159] and non-Germanic vocabulary have, of course, been excluded.

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[157] Richard d'Alquen, p. 231.
[158] ibid., p. 19.

In order to facilitate such a comparison, I have prepared tables listing paradigms for each of the major noun and verb classes in Germanic, Proto-Norse, Old Norse and Modern Norwegian/Swedish (see: Appendix, Table III: The reader may wish to refer to these tables extensively while reading this section). For the verbs, one Norse verb from the handbooks was selected for the paradigmatic model for each class, and others which follow the pattern of this model were listed below the paradigm. The tonal accentuation of the modern forms was looked up for all the verbs in all of their forms listed for a given class to assure that the pattern established for the model was not an exception. (Exceptions to the established accent pattern were marked with an asterisk.) For the nouns, several surviving examples from each class were selected. Most of the modern forms used in the tables are Norwegian. Swedish examples are given when the tonal accent differs in Swedish because of the retention of a polysyllable or when Swedish exhibits a more antiquated form.

We shall begin with the verbs, which d'Alquen regards as exerting a major influence in the transition to Germanic root accent.[160]

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[159] See: Chapter III, p. 39.
[160] ibid., p. 19.

A. Syllable Weight and Accent in the Scandinavian Verbs

The Strong Verbs in their Finite Forms

The accent patterning among the strong verb classes in Modern Scandinavian is completely regular from class to class. A mono- or disyllabic present tense indicative form always exhibits the Accent I, the monosyllabic preterite indicative also Accent I owing to the single syllable, and the disyllabic optative form, no longer in common use, exhibits Accent II. To a great extent, one would expect this patterning, since the present and preterite singular of strong verbs have been root accented since Pre-Germanic.[161] Classes I - III inherited heavy, accented roots in these forms from Indo-European, and classes IV, V and VI can be shown to have developed heavy, accented roots very early in both of the preterite categories.[162]

Even if suffix accent had existed here, its retention in the present singular indicative and preterite indicative into Norse would be unlikely since only the Proto-Norse 3 pl. present suffix can be considered heavy; all other suffixes consist of V̆, V̆C or (C)C in the case of the 2 pret. sg. ind. where the number of syllables in the word is not ev[illegible] increased by the inflectional ending.

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[161] ibid., p. 85, 101-2.
[162] ibid.

TABLE OF PROTO-NORSE ENDINGS FOR
STRONG VERBS IN THE INDICATIVE

		Present Tense	Preterite Tense
sg.	1	-u (L)	-
	2	-iR (L)	-st (L)
	3	-ið (L)	-
pl.	1	-om (L)	-um (L)
	2	-ið (L)	-uð (L)
	3	-an(n) (H)	-un (L)

By Old Norse, a monosyllable prevails in all singular indicative forms because of the reduction and/or complete loss of unaccented light endings (see: Table III). Extension of Old Norse stressed, monosyllabic 2/3 singular forms like *bîtr*, *gefr* in Modern Scandinavian through epenthesis would hardly be expected to create an Accent II from the established monosyllabic Accent I descended from Germanic single root accent.

Although both Swedish and Norwegian have levelled the present tense indicative paradigm and currently employ only one form based ultimately on the Proto-Norse 2 singular, most pre-1945 Swedish texts also use a plural present indicative form ending in *-a* and a plural preterite indicative form ending in *-o*. As far as I can determine, both of these plural forms take Toneme II.[143] This accentuation on the present plural form is easily explicable through syllable weight, since this form derives clearly from the 3 pl. ind. which had the heavy ending **-an(n)* (Gmc.

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[143] Axel Kock (1878), p. 69.

**-andi → *-anni → *-ann*) in Early Proto-Norse--the only person in the present indicative to maintain the weight of the original Germanic ending. Unfortunately, there is no such heavy ending to explain the Accent II on the preterite plural form. However, if Accent II is allowed to mark the plural in the present tense, one might then expect it analogically in the preterite plural. Since suffix accent is thought to be the original Pre-Germanic accentuation in the preterite plural of strong verbs,[164] what we likely have here is a case of *analogical accent retention*. This may be considered a case of markedness, with Accent II developing here into a marker of plural forms much as OHG retained a double accent to mark the 1 pl. pres. ind.[165] An accentual opposition between singular and plural is naturally (i.e., owing to post-radical syllable weight) present in many of the Scandinavian nouns.

The Modern Swedish optative form, now seldom used even in elevated speech, derives from the Norse preterite optative and takes, as indicated above, Toneme II. Judging by syllable weights, this accentuation is expected here, since all of the Proto-Norse preterite optative forms have heavy endings containing a long vowel.

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[164] Richard d'Alquen, p. 101.
[165] ibid., p. 59-60.

TABLE OF PROTO-NORSE ENDINGS FOR STRONG VERBS IN THE PRETERITE OPTATIVE

sg.	1	-jō (H)
	2	-īR (H)
	3	-ī (potentially H)[146]
pl.	1	-īma (H)
	2	-īð (H)
	3	-īn (H)

Germanic Reduplicating Verbs in their Finite Forms

Traditionally, the reduplicating verbs have often been considered separately when discussing historical developments. However, there is no real need to do this here. Since the Proto-Norse stage appears to be the most important or influential in the setting of Scandinavian tonal accent, and since the differences between the reduplicating and the strong verb classes--namely the reduplicating prefix on the preterite forms--had been eliminated by the Proto-Norse period,[147] the accentual history of these verbs may be considered the same as that of the strong verbs. Their present-day accentuation shows no differences from the strong classes, and historically, d'Alquen mentions root accent in the present indicative as in strong verbs and, for some examples, an accent pattern as in class VI.[168]

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[146] In d'Alquen's scheme, a long vowel could potentially fall to either side of the scale. I choose to classify it as heavy here (and throughout this chapter) since it will likely have behaved as such due to analogical pressure. The regular correspondence between -V̄ and Accent II, which will become apparent as we progress with our discussion, indicates, providing the theory is correct, that -V̄ must always be counted as heavy.

[147] There is evidence that the reduplicating prefix was probably not originally accented anyway. See: Richard d'Alquen, p. 100-1, 104.

The Weak Verbs in their Finite Forms

D'Alquen lists classes II and III weak--the Germanic ō- and ē-classes--as having suffix accent since Indo-European times: i.e., the Indo-European accent rested on the syllable containing the *ō/ē* as opposed to the root.[169] The inherited accent in these verbs was thus coincident with a heavy ending containing a long vowel and was therefore retained in Germanic. The advent of root accent would have brought the double accent to these classes, but the retention of the original suffix accent is enough to make these categories good candidates for the Scandinavian Accent II.

Syncope and coalescence of non-accented syllables following the accented Germanic *ō/ē* resulted in disyllables for all of the present tense forms by the Proto-Norse period, so that present indicative forms for classes II and III weak had either undeniably heavy endings consisting of V̄C or VCC or the borderline V̄ which, as previously stated, we shall count as heavy here.[170]

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[168] Richard d'Alquen, p. 100-1.
[169] ibid., p. 33-4.
[170] In fact, the status of V̄ does not really matter much in this case, since the surviving present tense forms *"kaller*, *'duger* are based ultimately on the 2 sg. form from Proto-Norse, which had already replaced the 3 sg. by the Old Norse period.

TABLE OF PROTO-NORSE PRESENT INDICATIVE FORMS
WEAK CLASSES II AND III

		Class II	Class III
sg.	1	kallō	dugē
	2	kallōR	dugēR
	3	kallōð	dugēð
pl.	1	kallōm	dugēmR
	2	kallōð	dugēð
	3	kallōn(n)	dugan(n)

It is clear that the majority of Proto-Norse present tense indicative endings were indisputably heavy, so that we can, according to the theory, assume the development of Accent II generally for classes II and III weak in the present tense.

In Modern Norwegian, however, the present tense accent distribution for these two classes is not uniform. While Accent II can be found in the present indicative of verbs in both classes II and III, and, indeed, seems to dominate in III, there are also many verbs which--like *duge*--exhibit only the Accent I for this form. I have also discovered a few verbs which may alternate between I and II (e.g. *like*, *leve*), depending on speaker and speech area, and yet others where the present tense accentuation is not covered by any of my reference works. The situation in Swedish could not really be sufficiently investigated because of a lack of suitable reference works, but I expect it is much the same. Consultation with a native Swedish speaker seemed to indicate a clear dominance of Accent II among verbs of the weak class II, but a *preference* for Accent I in class III even though Accent II may be allowed for some members of this class. These circumstances are reminiscent of the accent markings on class II and III weak verbs in Notker: A lack of consistency in the marking of endings there points to a shift towards single root accent.[171]

From all this, I draw the conclusion that Accent II is original here, but that there has been much accentual influence from other verb classes, likely from the root accented present indicative of the strong classes. The trend, as evident from the varying accentuation of verbs like *like*, *leve*, seems to be toward eliminating Accent II from the present indicative, especially in class III. Class III weak is a very small class, and as such one might expect it to be easily influenced. It contains a large percentage of verbs which have been reduced to monosyllables (*bo*, *tro*, *ha*) which also reduces the presence of Toneme II in this class. The greater acoustical stability of the Accent I stress and pitch pattern (see: Chapter II, p. 10) may also be a factor here.

In the present indicative of weak classes Ia and Ib (ja- and ia-classes) we find a dominance of Toneme II, with the exception of monosyllables and *'brenner* which likely has its Toneme I through confusion with the related strong verb *brenne* (itr.). Looking at the Proto-Norse paradigms for these classes, we find that class Ib is consistent with the theory, but that the Toneme II in class Ia does not coincide with a heavy ending.

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[171] ibid., p. 25, 44.

TABLE OF PROTO-NORSE ENDINGS FOR WEAK CLASSES Ia AND Ib IN THE PRESENT INDICATIVE SINGULAR

	Class Ia	Class Ib
1	-u (L)	-iu (potentially H)
2	-iR (L)	-íR (H)
3	-ið (L)	-íð (H)

A comparison of the root syllables of the Modern Scandinavian and Norse forms of these verbs provides us with the clue to a plausible explanation for this discrepancy. Germanic and Norse class Ia (ja-class) was originally comprised of verbs with a short root only, whereas class Ib (ia-class) contained only long roots. The development of the Germanic endings into Proto-Norse is such that a heavy ending was paired with long/heavy roots and a light ending with short/light roots. This is doubtless connected with the development of root accent in that placing a heavy ending after a light root would create the difficult sequence ĹH, which, because of the accentual pull of the heavy ending, is undesirable.[172] We notice that in the development to Modern Scandinavian, the roots of all the class Ia verbs have been lengthened by several means:

> 1. According to Torp: "Alt i on. forlængedes *g* og *k* foran *j* efter kort vokal: *leggja* af **lagjan*, *lykkja* af **lukjan*. Men da i de fleste hidhørende ord *j* i nogle former blev *i* . . ., kom former med dobbelt *g* og *k* til at veksle med andre med enkelt; paa denne maade opkom dobbeltformer som *vekkja*, *vekja*."[173]
>
> The doubled consonant may be assumed to have added the necessary weight to the root to make it heavy.

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[172] See: ibid., p. 20 ff.

[173] Alf Torp and Hjalmar Falk, p. 31.

2. Where loss of the *j* occurred, lengthening of the root took place by means of the Great Quantity Shift such that the vowels in open syllables were affected: *glēde* ← *glĕðja*.

3. Where the *j* was maintained, it may be considered to make the root heavy by position: Swed. *välj-a*, *tälj-a*.

Through such root lengthening, members of weak class Ia obtain the root structure associated with class Ib. It is plausible to assume that this caused a merger of the two classes, and class Ia then adopted the forms and accent pattern (Accent II in the present indicative) associated with existing weak verbs with a long/heavy root. The prevalence of Toneme II in the present indicative of the large class II weak may have also exerted some influence.

As in the strong verbs, older Swedish texts often use a special present plural form in the weak classes as well--a form ending in *-a* and pronounced with Toneme II. As with the present plural form for the strong verbs, this form also clearly derives from the Norse 3 plural: e.g. **waljan(n)* → *velja* → *välja*. The heavy ending with geminate *n* in Early Proto-Norse was doubtless accented (as was the 1 plural)[174] because of its weight, and thus the Toneme II comes as no surprise.[175] Reference may also be made to the preservation of the long *ō* in this person in class II, which would have contributed to the weight of the ending.

In the preterite tense, all weak classes have disyllabic endings in Proto-Norse consisting of a class-marking vowel plus a dental suffix. For the preterite singular forms, the structure is V̆+CV̄(C) in class I and V̄+CV̄(C) in classes II and III. Since we consider the presence of a long vowel as making a syllable heavy, the Proto-Norse singular forms all have heavy endings regardless of the weight of the class-marking vowel: we find either LH or HH.

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[174] See: Richard d'Alquen, p. 24, 47, 59-61.
[175] See: ibid., p. 229.

TABLE OF PROTO-NORSE WEAK PRETERITE ENDINGS
IN THE SINGULAR

	Class I	Class II	Class III
1	-iðō (LH)	-ōðō (HH)	-ēðō (HH)
2	-iðēR (LH)	-ōðēR (HH)	-ēðēR (HH)
3	-iðē (LH)	-ōðē (HH)	-ēðē (HH)

As the present-day preterite form derives from the 1 or 3 singular Norse forms, we have no problem relating the Accent II back to a heavy ending. Of the two Proto-Norse final syllables, I would consider the ultima (sequence beginning with the dental suffix) to be the carrier of the secondary accent in all three classes by the Proto-Norse period. This assumes a shift of the accent from the penultimate class-marking vowel to the ultima in classes II and III--a shift to the following syllable. The *ō* could then be weakened to *a*, the *ē* to *i* and then--along with the original class-marking *i* of class I--to zero by the Old Norse period.

The Swedish preterite optative form is identical to the preterite indicative in all three weak classes, and expectedly the accentuation is also the same: Accent II is found throughout. The correspondence with a heavy ending is evident throughout the paradigm owing to the long -ī- or diphthong which marked the final syllables for this mood in Proto-Norse.

TABLE OF PROTO-NORSE DENTAL SUFFIXES FOR WEAK VERBS (ALL CLASSES) IN THE PRETERITE OPTATIVE

sg.	1	-ð(i)au (H)
	2	-ðīR (H)
	3	-ðī (H)
pl.	1	-ðīm (H)
	2	-ðīð (H)
	3	-ðīn(a) (H)

Preterite-Present Verbs in their Finite Forms

As with the reduplicating verbs, there is no real need to talk about the preterite-present verbs as a separate class here. Since Proto-Norse, the accentual development in the preterite-present as dictated by syllable weights is essentially the same as that discussed for the weak verbs. The only real difference lies in the indicative present tense forms, which use the preterite indicative endings of the strong verbs and thus have that pattern of accentuation: Accent I in the present singular resulting from a Proto-Norse monosyllable, and Accent II in the obsolete Swedish present plural by analogy with other plural verb forms (see: Table III). The preterite indicative and optative forms employ the same ultimas as the weak verbs, but without the addition of a dental. These syllables are all heavy and, as we have proposed, accent bearing for the weak classes.

TABLE OF PROTO-NORSE PRETERITE-PRESENT ENDINGS
IN THE PRETERITE INDICATIVE AND OPTATIVE

		Indicative	Optative
sg.	1	-ọ̄ (potentially H)	-jau/-jō (H)
	2	-ẹ̄R (H)	-īR (H)
	3	-ē (potentially H)	-ī (potentially H)
pl.	1	-um (L)	-īma (H)
	2	-uð (L)	-īð (H)
	3	-un (L)	-īn (H)

Infinitives and Participles

The infinitives of all Norwegian and Swedish verbs take Toneme II unless they have become monosyllabic. Like the 3 plural form in the present indicative, the infinitive in Early Proto-Norse ended in a geminate *n*: E.P.N. *-*ann*. This VCC heavy ending was the product of the coalescence of two Germanic light syllables after the syncopation of the original vowel in the ultima: Gmc. *-*anan* → E.P.N. *-*ann*. From either the Germanic or the Early Proto-Norse form we would predict Toneme II according to the theory.

It must be noted, however, that this Early Proto-Norse geminate -*n* does not survive the Proto-Norse period. By Late Proto-Norse only a single *n* remains, which then falls victim to apocope to yield the Old Norse infinitive ending -*a*. As both the Late Proto-Norse and Old Norse endings are light syllables, this gives us a clue to the time period when the two word accents came into being. Since the double *n* is necessary to explain the Accent II for both infinitives and 3 plural forms according to d'Alquen's theory, this would indicate that the Scandinavian accent system must have been in the process of becoming fixed at the time of Early Proto-Norse; Early Proto-Norse is the linguistic stage in which the correspondence of heavy post-radical syllable to Accent II, light post-radical syllable to Accent I is maximal. (D'Alquen proposes the existence of suffix accent on heavy suffixes and double accent by Late Germanic, hence the accentual parallels with Notker's Old High German texts.)[176] That is, the presence or absence of accent on the ending of a modern word of Germanic word stock was most greatly determined by the syllable structures and accentual conditions of Early Proto-Norse and maintained thereafter, despite the advent of root accent and the greater and lesser effects of syncope and apocope. Reduction to a monosyllable is the only way a double accent could be eliminated from a word, and this was very rare since most words that were reduced to monosyllables (i.e., present indicative of strong verbs) had light, unaccented endings or, in other words, *Accent I in Proto-Norse. Preservation of a suffix accent in Accent II words doubtless provided some resistance to apocope, though Roberts may be correct in saying this preservation itself was little more than the result of "meaningless tradition".[177] In any case, it appears the accent distinction was fixed long before Oftedal's chosen Old Scandinavian Period, and certainly before the Late Proto-Norse or Syncopation Period to which Axel Kock's theory traces it.

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[176] Richard d'Alquen, p. 24, 232.
[177] Murat Roberts, p.178.

The present participle provides, of all verb forms, the most obvious connection between the Accent II and the presence of a heavy ending: Gmc. **-andj-*, **-ōndj-*, **-ēndj-*. It is, in fact, the only verb form in which the original weight of the ending has been preserved--ultimately by the j-suffix--right up to modern times: VCCV since Germanic.

For the past participle, Proto-Norse had two distinct sets of endings. A disyllabic post-radical suffix consisting of a class-marking vowel (either *ī*, *ō* or *ē*) plus *-ð*aR* (← Gmc. *-ð*az*) was used for the weak verbs, and the disyllabic nasal suffix *-*īnaR* was used for the strong verbs.[178] These suffixes consist each of two light syllables. But if we consider here a principle of Germanic metrics, namely that two light syllables may count as one heavy unit,[179] then we would predict the Accent II for all past participles based on these Proto-Norse forms. A history of inherited suffix accent in the past participles of Germanic strong verbs;[180] plus the decidedly heavy endings evolving from these Proto-Norse disyllabics in Old Norse, *-īðr/-aðr*[181] and *-inn*, are even more indicative of Accent II. But these are masculine forms, and the past participles in Modern Norwegian and Swedish derive from an Old Norse neuter form which was used in passive constructions and often with *hafa* in the perfect tenses, especially with certain weak and preterite-present verbs.[182] Swedish does exhibit a masculine form of the past participle which is used adjectivally. It ends in *-en*, derived from Old Norse *-inn*, and carries, in agreement with the above predictions of the theory, Toneme II.

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[178] See: Siegfried Gutenbrunner, p. 157-8; also Chapter IV, p. 54.
[179] See: Werner Hoffmann, p. 9; Eduard Sievers, p. 186.
[180] Richard d'Alquen, p. 101.
[illegible] -ð*r* in class III weak.

Modern past participles deriving from Norse neuter forms also take Toneme II as long as they have remained disyllablic; many have been reduced to monosyllables, more so in Norwegian than in Swedish. The Norse grammars and handbooks consulted, unfortunately, do not list a Proto-Norse form for the neuter past participle by which we could account for the present-day accentuation. Krahe/Meid give the Gothic/Germanic neuter ending for past participles as *-V*ðata* for weak verbs and *-*anata* for strong verbs.[183] From these we reconstruct *-V*ðat* as the Proto-Norse ending for the weak classes and *-*inat* for the strong classes. As with the masculine Proto-Norse endings above, we find here two light syllables which we can count as one heavy to account for the Toneme II on present-day polysyllabic forms. The further development would then proceed as follows. In the weak verb ending, the *-a-* of the ultima is lost by syncopation, yielding *-V*ðt*. Assimilation of *ðt* to *tt* with loss of the second *t* gives us the Old Norse ending -V*t*.[134] In the strong verb ending, the *-a-* of the ultima is again syncopated, yielding **-int*. The *nt* is also assimilated to *tt* with subsequent loss of the final *t*, yielding *-it*, the ending found in Old Norse. The *-i-* of the Old Norse ultima has often been syncopated or weakened to [ə] in the modern languages.

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[182] Adolf Noreen (1923), p. 366-7.

[183] Hans Krahe and Wolfgang Meid, vol. II, p. 82.

The Imperative

As far as the imperative (2 singular) is concerned, Proto-Norse forms show a heavy final syllable, consisting of the class-marking V̄, only in classes II and III weak. Class I weak verbs end in *-i*, a light syllable, which is lost by the Old Norse period, and all other verb classes exhibit monosyllabic imperatives already since Germanic. Modern Norwegian has eliminated endings altogether in all imperative forms, making the imperatives of most native Germanic verbs monosyllables accented by Toneme I. Only Swedish still uses imperative forms with an ending: A short *-a* (← P.N. **-ō*) is suffixed to the stems of class II weak verbs, making imperatives identical to infinitives in this class. Just as with infinitives, Toneme II is used here, and is clearly explicable by the weight of the Proto-Norse ending (**-ō* = V̄ = H) in this class.

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[134] *-t* in class III weak.

B. Syllable Weight and Accent in the Scandinavian Nouns

The a-, wa-, ō-, jō-, wō-, i- and u-stems

While discussing the verbs, we noted an accentual distinction between singular and plural in the present and preterite indicative and the maintenance of such a distinction through analogy. Many Scandinavian nouns also exhibit this same singular-plural accentual distinction. I found it in 8 out of 13 classes, 7 of which we can examine immediately:[185] masculine a-stems, all wa-stems, ō-stems, jō-stems, wō-stems, i-stems and u-stems. Modern singular forms are typically monosyllabic and carry Toneme I, contrasting with disyllabic plural forms bearing Toneme II. In such nouns, singular forms are derived from the monosyllabic Old Norse accusative singular, which had long before lost the unstressed light vocalic ending (-V̆) it bore in Proto-Norse. Plural forms, on the other hand, derive from the Norse nominative plural which had a heavy ending (-V̄*R*) in Proto-Norse.

Glancing over the Proto-Norse paradigms for these nouns, we find that heavy endings prevail in all four cases in the plural, and light endings dominate in the singular except for some interplay in some of the genitive and dative forms. It is important here to note the presence of light (unaccented) endings in the singular of certain classes which originally had suffix accent from Pre-Germanic, namely the i- and ō-stems.[186] It is even more important to note that the ō-, wō- and jō-stem singular forms still had heavy endings in Germanic and that the present-day Accent I in these forms is due to the fact that this ending became light by Proto-Norse. These conditions illustrate clearly that Scandinavian accentuation is, first of all, not Indo-European but Germanic and, secondly, a specifically Early Proto-Norse development.

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[185] The original short syllable masculine ja-stems also exhibit this distinction, but because of certain difficulties with this class, I have chosen to deal with them later. Certain problems with the jō-stems will also be dealt with at that time, although I have included them here.

TABLE OF PROTO-NORSE ENDINGS OF NOUN CLASSES
EXHIBITING A SINGULAR-PLURAL ACCENTUAL CONTRAST
IN MODERN SCANDINAVIAN

		a-/wa-stem, masc.	ō-/jō-/[187]wō-stem
sg.	N	-aR (L)	-u (L)
	A	-a (L)	-u (L)
	G	-as (L)	-ōR (H)
	D	-ē (H)	-u (L)
pl.	N	-ōR (H)	-ōR (H)
	A	-anR (H)	-ōR (H)
	G	-ō (H)	-ō (H)
	D	-umR (H)	-umR (H)

		i-stem, masc.	i-stem, fem.
sg.	N	-iR (L)	-iR/-u (L)
	A	-i (L)	-i/-u (L)
	G	-āR (H)	-āR/-ōR (H)
	D	-i (L)	-i/-u (L)

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[186] See: Richard d'Alquen, Chapter 11.

[187] Only those jō-stems unaffected by the i-stems bore this set of endings. i-stem influence on the jō-stems is discussed later in this chapter.

pl.	N	-īR (H)	-īR
	A	-inR (H)	-īR (H)
	G	-(i)ō (H)	-ō (H)
	D	-umR (H)	-umR (H)

u-stem

sg.	N	-uR (L)
	A	-u (L)
	G	-ōR (H)
	D	-iu (H)
pl.	N	-iuR (H)
	A	-unR (H)
	G	-(i)ō (H)
	D	-umR (H)

The ō-, wō-, jō- and u-stems form the genitive singular with the heavy *-*ōR*, the i-stems with the heavy *-*āR*, which would make cases for Toneme II according to our theory. Unfortunately, this "r"-genitive has been abandoned in favour of the "s"-genitive in all of the modern languages with tone. But Kock does list some fossilized genitive prepositional phrases from Swedish which likely have their Toneme II from older forms in *-ōR* or *-āR*: *till "handa, till "rygga.*''' The Norwegian phrase *til "stede* also belongs in this group.

The a-, wa- and u-stems formed the Proto-Norse dative singular with a heavy long *-ē* or diphthongal *-iu*,''' which should also yield Toneme II. And we can find plenty of examples of antiquated dative prepositional phrases with

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'''Axel Kock (1878), p. 71.

'''-*iu* is given the same value as -V̄, which we have considered heavy.

Toneme II: *i "gårde, ur "huse, i "delo, i vredes "mode.*[119] Since the nouns used in such dative phrases may not always be from one of the stem classes above, but rather may come from a class where the Proto-Norse dative singular had a light ending, we must conclude that Norse developed Accent II as a generalized marker for the dative (singular).

The singular-plural accentual distinction is notably absent among the neuter a-stems, where modern monosyllabic singular forms remain monosyllabic in the plural. Accent II would be found only in antiquated dative singular forms owing to Proto-Norse *-ē* (H). The Proto-Norse etyma for the present-day singular and plural neuter a-stems (acc. sg. and nom./acc. pl.) bore unstressed light endings consisting of V̆ which was then lost by the Old Norse period.

TABLE OF PROTO-NORSE ENDINGS FOR NEUTER A-STEMS

sg.	N	-a (L)
	A	-a (L)
	G	-as (L)
	D	-ē (H)
pl.	N	-u (L)
	A	-u (L)
	G	-ō (H)
	D	-umR (H)

The above-mentioned stem classes also contain some non-compounded nouns which are *polysyllabic* in the singular: *"hammer* ← P.N. **hamaraR* (a-stem, masc.), *"sommer* ← P.N. **sumara* (a-stem, neut.), *"fagnad* ← P.N. **fagnaðu* (u-stem). Here the singular-plural accentual contrast is also lost due to the presence of Accent II in both singular and plural forms. Toneme II in the plural is explicable (except for polysyllabic a-stem neuters) in the same way as for nouns with monosyllabic singular forms--namely through the heavy ending of the Proto-Norse nominative plural (-*V̄R*). To account for the presence of Toneme II in the singular, however, we must refer to that basic law of Germanic versification we employed previously in our discussion of the verbs: A succession of two light syllables may be considered as one heavy.[111] In this instance, then, we can count the light penultima of the Proto-Norse forms together with the light ultima (regular nominative singular ending) to establish sufficient weight justification for a double accent. This explanation may also be applied to the plural forms of polysyllabic a-stem neuters, where case endings are not heavy.

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[119] Axel Kock (1878), p. 71.

"*dronning* ← P.N. *drōtningu (ō-stem) may also be seen as a polysyllabic singular form fitting in with the above group. The Toneme II of the singular and plural forms of this noun originates differently than the others, however. Here secondary accentuation is indicated by the weight of the second syllable: -ning or CVCC is clearly heavy and also has a history of accent.[112] Since -(n)ing is an identifiable derivational suffix for Proto-Norse--though one of lower productivity--some may choose to regard this word as a compound and thereby exclude it from discussion here. But the word does, nevertheless, give further illustration of the connection between a heavy post-radical syllable and Accent II. And, as expected, other formations with *-(n)ing* are likewise found to carry Toneme II: *"setning, "fatning, "holdning, "hilsning.*

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[111] See: Chapter V, p. 74.
[112] Richard d'Alquen, p. 145.

The ja-stems

The ja-stems show an interesting alternation in accent pattern. The reader will recall that in the present tense of class I weak verbs we noted a coincidence of heavy root with heavy ending and light root with light ending; the weight of the root, in fact, had formed the original basis for the division of class I into two sub-classes. We are faced with a similar situation in the ja-stem nouns. According to the Sievers-Edgerton principle, Germanic originally attached a disyllabic (= H) ending containing an epenthetic *-i-* after long roots: e.g. **herðijaz* (masc. ja-stem, nom. sg.). After short roots, however, Germanic used monosyllabic, light inflectional suffixes: e.g. **harjaz* (masc. ja-stem, nom. sg.). It is assumed here that the phonology of Germanic resisted a heavy ending after a light root as inconsistent with the development of root accent. Such weight and its associated accent could only be tolerated after short roots as an indicator of the plural (i.e., for purposes of markedness), as posited in the short root ja-stems: Gmc. **hárjó:z* (masc. ja-stem, nom. pl.).

Proto-Norse attempted to level these suffixal differences analogically using the disyllabic (long root) suffixes as models. Runic inscriptions show that the heavy suffixes came to be attached to short roots as well as long: E.P.N. **herðijaR*, **harijaR* (masc. a-stem, nom. sg.).[113] This ending is conventionally assumed to have become **-iaR* and maintained its heavy weight. The attempt at levelling was, however, unsuccessful; the instability of ĹH in the wake of root accent prevented the light ending from dying out after short roots; root-accented variants existed alongside the analogical double-accented forms: P.N. **hárjaR* ~ anal. **háriáR*.[114] By the Old Norse period, the root-accented type had won out among original short root ja-stems, so that the endings were weakened and a monosyllabic singular form resulted: O.N. *herr* (nom. sg.) → Norw. *'hær*. Contrasting with this were the original long root ja-stems which retained their disyllabicity because of double accent and the originally heavy Proto-Norse ending: O.N. *hirðir* → Norw. *"hyrde*.

The jō-stems

The jō-stems should have essentially the same set of endings as the pure ō-stems, except for the presence of the j-infix. However, there has been much influence from the feminine i-stems which has affected the accent distribution. Unaffected by analogy is the paradigm for Gmc. **agwijō* (Norw. *øy*) [see: Table III in Appendix], which, like the ō-stems, has Accent I in the singular and II in the plural.

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[113] Wolfgang Krause, p. 94.
[114] ibid.

Those nouns affected by the i-stems, like Gmc. **armijō* (*"erme*), take Accent II in both singular and plural forms. Since the i-stems themselves exhibit the distribution 'sg:"pl., we must seek an explanation as to how i-stem influence has resulted in Accent II in the singular.

Harking back to the original Germanic form **armijō*, we note that the j-infix functions here as a class marker. Early influence from the i-stem feminines would not displace this marker, but rather the i-stem ending would be added after it: **armijō* → **armijiz*. Vocalization of the *-j-* results in a long *-ī-* by the Proto-Norse period: P.N. **armīR*. Note that this Proto-Norse ending now differs from the actual i-stem ending which contains a *short* vowel; the jō-stem nom., acc., dat. singular forms are thus kept distinct from the i-stems. The long *ī* results in a heavy ultima and therefore a double accent (Accent II) for these singular jō-stems. This accent pattern also preserves the vocalic ending of the accusative and dative singular forms into Old Norse (**-ī* → *-i*),[113] giving us disyllables in the modern languages.

Weak Nouns (n- and ōn-stems)

The weak nouns form another group in which the singular and plural forms are not accentually distinguished: Both forms exhibit Toneme II. The Pre-Norse accentual history of this group is somewhat obscure: Germanic is thought to have had changing accent (schwankende Betonung) in the masculine and neuter n-stems, but a "tenaciously maintained" suffix accent in the feminine ōn-stems owing to the weight of the long vowel.[196] The Accent II of the feminine singular forms can thus be adequately accounted for, and a long ultimate *-ō* in Proto-Norse in both the nominative and accusative singular forms of the neuter can be used to explain the present accentuation there: *hértó:* → *hjarta* → *"hjerte*. Accent II in the singular masculines could be attributed to a postulated heavy Early Proto-Norse accusative ending (**-ann* ← Gmc. **-anun*) for certain East Norwegian dialects in which this derivation would be preferred,[197] but otherwise an explanation based on the Proto-Norse nominative is in order.

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[113] Note that the final vowel is lost in these cases in the feminine i-stems. See Table III.

TABLE OF ENDINGS FOR PROTO-NORSE WEAK NOUNS

		masc.	neut.	fem.
sg.	N	-ā/-ē (H)	-ǭ (H)	-ǭ (H)
	A	-an(n) (L)	-ō (H)	-ǭn (H)
	G	-an (L)	-an (L)	-ǭn (H)
	D	-an (L)	-an (L)	-ōn (H)
pl.	N	-an (L)	-un(a) [L+(L)]	-ōn (H)
	A	-anR (H)	-un(a) [L+(L)]	-ōn (H)
	G	-anō (H)	-anō (H)	-ǭnō (H)
	D	-umR (H)	-umR (H)	-ōmR (H)

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[196] Richard d'Alquen, p. 163, 179.

[197] As opposed to Bokmål and Swedish, the modern forms of weak nouns undoubtedly derive from the accusative in these dialects. Note that the reconstructed Proto-Norse ending **-an(n)* is our own and is not cited in any of the handbooks consulted.

One notes that most Old Norse masculine nouns end in *-r* in the nom. sg. However, *-r* eventually came to be associated largely with plurals, and consequently was no longer desirable as a singular ending. This explains the preference for the accusative as a model for modern forms of most masculine nouns. For the weak nouns, however, this *-r* was not present and therefore presented no problem; the modern forms could derive directly from the Norse nominative in this instance, as clearly seems to be the case in Swedish. The Proto-Norse weak masculine nominative forms **hanē/hanā*, **grannē/grannā* have the ultimate weight necessary to support a final accent and likely existed in both root and suffix accented forms,[198] the latter of which may be assumed to have won out.

The plural forms of the weak classes are heavily influenced by the masculine a-stem plurals; the masculines and feminines already show this influence by the Old Norse stage. Norwegian has further levelled the paradigms by the application of *-r* (← a-stems) among weak neuter plurals and the reduction of all ultimate unstressed vowels to *-e-* [ə]. The use of the masculine a-stem plural ending in these cases would be expected to bring along the Accent II normally associated with it. Plurals of the weak neuters in Swedish, however, still reflect the original Norse endings for this group. The suffix *-an* or *-on* is only used with Toneme II, reflecting the disyllabic (heavy) **-una* of the Early

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[198] cf. ibid., p. 183.

Proto-Norse nominative and accusative forms.

The īn-stems

Feminine abstract nouns (īn-stems) comprise a very small class with a history of heavy suffix accent in Germanic.[199] It therefore comes as no surprise to find the weight of the ending maintained through the Proto-Norse period, and an ultimate stress doubtless along with it.

TABLE OF PROTO-NORSE ĪN-STEM
ENDINGS IN THE SINGULAR

N	-ī (H)
A	-īn (H)
G	-īn(n) (H)
D	-īn (H)

These feminine abstracts form a special category of nouns that are not attested in the plural; suffix accent doubtless originally marked them as special derivatives. In any case, the coincidence of heavy ending, suffix accent and Toneme II is indisputably clear in this class.

The r-stems or Kinship Terms

The modern words for 'father', 'mother' and 'brother' have the monosyllabic (Tone I) singular forms *'far*, *'mor* and *'bror* which are used in everyday speech, but the full singular forms *"fader*, *"moder*, *"broder* as well as *"søster* and *"datter* all exhibit Accent II.[200] Looking at the Old

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[199] ibid., p. 144.

[200] It is interesting to note that the definite singular forms of the monosyllabic kinship terms like *'far*, *'mor*, etc. are spoken with Accent II: *"faren*, *"moren*, This is unusual because the addition of the definite article normally does not change the toneme of a noun. In this case,

Norse singular paradigm for 'father', it is apparent that all but the nominative were affected by i- and u-umlaut. The present-day disyllabic singular form derives clearly from the old nominative.

TABLE OF SINGULAR FORMS OF 'FATHER'
PROTO-NORSE AND OLD NORSE

	Proto-Norse	Old Norse
N	faðār/faðēr	faðir
A	faðaru	fǫður
G	faður	fǫður
D	faðri	feðr

As inherited from Pre-Germanic, some of the r-stem nominatives have suffix accent (**faðé:r*, **mōþé:r*), some root accent (**bró:þer*).[201] In Proto-Norse, we find the nominative has a heavy ending (V̄C), and also that the accusative ends in two light syllables which can be taken together as one heavy. In other words, we recognize the potential for accentuation of the final syllable here. The Accent II of the modern singular is thus well accounted for by the theory.

Expectedly, the modern plural forms of most of the r-stems take the Accent II, with the exception of Norwegian *døtre* ('daughters') which has Accent I. Since the Swedish plural form of this noun, *döttrar*, carries Accent II, I would like to suggest that *'døtre* is an accentual relic that has somehow managed to survive, and that the other r-stem

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[200] (cont'd) the Accent II was apparently carried over from older definite forms, *"faderen*, *"moderen*. Because *"faren*, *"moren* are disyllabic, they are able to support Toneme II, whereas the monosyllabic *'far*, *'mor* are not.

[201] Richard d'Alquen, p. 173-4.

plurals all have their Accent II by analogy with other classes. This explanation is indicated by the syllable weights of the Proto-Norse forms (see table below): Both nominative and accusative plural forms had light (VC) ultimas which fell victim to syncope by the Old Norse period. Modern Norwegian has extended the Old Norse forms by addition of the schwa.

TABLE OF PLURAL FORMS OF 'FATHER' AND 'DAUGHTER' IN PROTO-NORSE AND OLD NORSE

	Proto-Norse	Old Norse
N/A	faðriR/dohtriR	feðr/dœtr
G	faðrō/dohtrō	feðra/dœtra
D	faðrumR/dohtrumR	feðrum/dœtrum

The Root Stems and nd-stems

The root stems form another class where the singular-plural accentual distinction is lost. Containing both masculine and feminine nouns,[202] this class is also known as the *monosyllabic consonant stems* because the nom. sg. and nom./acc. pl. forms are historicallly monosyllabic.

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[202] In the nom. sg. and nom./acc. pl., the most relevant cases as far as present-day forms are concerned, feminines exhibit historically the same endings as masculines. A separate paradigm for feminine forms is therefore considered unnecessary.

TABLE OF PROTO- AND OLD NORSE FORMS OF THE ROOT STEM NOUN 'FOOT'

		P.N.	O.N.
sg.	N	fōtR	fótr
	A	fōtu	fót
	G	fōtōR	fótar
	D	fōtiu	fóti
pl.	N	fōt(i)R	føtr
	A	fōt(i)R	føtr
	G	fōtō	fóta
	D	fōtumR	fótum

Like the monosyllabic neuter a-stems, Accent I is expected--due to the monosyllabic history--and found in both singular and plural forms: *'mann:'menn, 'tå:'tær, 'fot:'føter, 'tann:'tenner, 'hand:'hender*. The nom./acc. plural form of some nouns in this class became disyllabic through epenthesis in the transition from Old Norse to Modern Scandinavian: O.N. *nætr* 'nights' → Norw. *'netter*. The original Tone I of the plural form remained, of course, unaffected. The singular oblique cases of this class have a history of influence from the a-, u- and ō-stems at least since the Proto-Norse period, and ō-stem influence is also noted in the genitive and dative plural of feminine root stems.[203] This influence, however, plays no role in determining the present-day accentuation. The accusative singular form of both masculines and feminines, considered the forerunner of the modern singular form, bore an unaccented light ending in Germanic and Proto-Norse [*-V̆(C) → *-V̆], which was lost completely by the Old Norse period.

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[203] cf. Iversen, p. 93; Noreen (1923), p. 282.

The nd-stem nouns were modelled in the singular after the masculine n-stems, but in the plural after the root stems.[204] Based on our discussions of these stem classes, we would expect Accent II in the singular, but Accent I in the plural. Only two examples of nd-stems survive in Modern Scandinavian, namely (Norw.) *"bonde* ('farmer') and *"fiende* ('enemy'). Norwegian *"Bonde*, as expected, exhibits Accent II in the singular, and Accent I is found in the plural, (*'bønder*), because of the non-syllabic light nom./acc. plural endings of the root stems. The situation in Swedish is identical. *"Fiende*, on the other hand, while having the expected Accent II in the singular, has, analogous to the majority of polysyllabic plurals, acquired the compound accent for its plural forms as well. Thus, only one example of the original accentuation survives in this class.

C. Some Brief Notes on Accent in Adjectives and Adverbs

Although the present investigation does not primarily focus on adjectives or adverbs, a few general remarks would seem in order. Modern Norwegian and Swedish exhibit three forms of the adjective in the positive: (1) a strong form for the common gender singular comprised of the bare stem, e.g. *stor*, (2) a strong form for the neuter singular made up of the stem plus *-t*, e.g. *stort*, and (3) a general plural and weak singular form consisting of the stem plus *-e* (Norwegian) or *-a* (Swedish), e.g. *store* (Swed. *stora*).

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[204] Noreen (1923), p. 287.

Adverbs usually take a *-t* ending. Adverbs and the common and neuter strong adjective forms of Germanic word stock usually take Toneme I, unless they are compounded or incorporate special derivational endings such as *-ig*. This particular suffix goes back to the heavy and, already by Late Germanic, accented **-īg-*,[205] and consequently it occurs with Toneme II. Unless such derivational suffixes are used, the only adjective form which can and does take Toneme II is the plural and weak form (*"store*), since it is the only form which is always polysyllabic. Declensions of the adjective originated in those of the nouns and pronouns. This being so, Accent II is the logical accent pattern for plural adjective forms since it is found in the majority of noun plurals. We traced Accent II in the singular of weak nouns back to heavy Proto-Norse endings, and since these endings were common to both weak nouns and weak adjectives at this stage,[206] there can be little question as to the origin of Toneme II on the modern weak adjective.

Both comparative and superlative forms of the adjective/adverb with the full endings *-ere*(Norw.)/*-are*(Swed.) and *-est*(Norw.)/*-ast*(Swed.) carry Toneme II as a result of heavy or disyllabic Proto-Norse endings: P.N. comparative **-ōR*+V, superlative **-ōst*(-). However, some high frequency modern superlative forms with monosyllabic positives add only *-st* to the stem, so that a monosyllable with Toneme I is maintained. These forms derive from Proto-Norse *-*ist*(-), which--although heavy, but lighter than *-*ōst*(-)--lost its vowel through late syncope. Similarly, there are monosyllables with comparative forms that have a reduced ending (so-called "syncopated comparatives"; see: Chapter II, p. 11 and Chapter III, p. 24), namely -*re* ← P.N. *-*iR*+V, and these are found with both tones.[207] The origin of the accentuation in these syncopated comparatives is controversial, and we have touched on it before (see: Chapter III, p. 25). Accent II is common on these forms in the fringe areas of Scandinavia, and for this reason I side with Oftedal[208] in calling this the original accentuation and derive it from secondary accent on the disyllabic (= H) *-*iR*+V. The problem is then reduced to finding an explanation for the advent of Toneme I here, other than the fact that it is acoustically more stable. For this, we can again turn to Oftedal. According to him, Toneme I here was originally the accentuation of many *adverbial* comparatives;[209] these would have had the unstressed light ending *-*iR* in Proto-Norse.[210]

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[205] ibid., p. 218; see also: Krahe/Meid, vol. III, p. 191.
[206] Krahe/Meid, vol. II, p. 76.

> Historically, a transition from an original Accent 2 to a modern Accent 1 is more easily explained than the inverse process. OScand. possessed monosyllabic comparatives of adverbs, as *lengr* 'longer', *heldr* 'rather', *verr* 'worse', *minnr* or *miðr* 'less', *meir* 'more', *betr* 'better'. Those that ended in consonant plus -*r* had a svarabhakti vowel inserted, became disyllabic, and accordingly received Accent 1 in all dialects.[211]

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[207] Most examples have Toneme I in the standard languages.
[208] Magne Oftedal, p. 212-13.
[209] ibid., p. 215.
[210] Krahe/Meid, vol. II, p. 86.
[211] Magne Oftedal, p. 215

Since the distinction between adjectival and adverbial comparative forms has been lost in all but a few dialects of Modern Scandinavian, and comparative forms of adjectives have become indeclinable,[212] one can envision the spread of the adverb accent pattern to similarly structured adjectives.

> . . . it must be permissible to infer that some of the forms of modern speech are really compromise forms of adverb and adjective, e.g. *min'dre* of **min dre* and *min'der*, and that these compromise forms have become strong enough (they are among the most frequent of comparative forms) to exert a pressure of pattern on those adjectival comparative forms that did not have corresponding adverbial forms, as *yngre, eldre* a. s. o., so that these, too, acquired Accent 1.[213]

Clearly the regularity of the correspondences between heavy Proto-Norse endings and the modern Toneme II, light endings and Toneme I, in the verb and noun paradigms examined in this chapter is very strong evidence in support of d'Alquen's view of accent, and the high explicability of the exceptions as well as the plausibility of the explanations seem to complement this evidence. Although a deeper investigation of adjective endings in terms of syllable weight is considered beyond the scope of the present thesis, it certainly appears from the above that d'Alquen's theory could be applied in a more thorough investigation of adjectives equally as well as we have done with the verbs and nouns.

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[212] ibid.

[213] ibid.

VI. Summary and Conclusion

In providing an examination of Scandinavian accent, the present thesis has touched on many aspects, both synchronic and historical. The presence of a tonemic contrast on individual polysyllables in most Norwegian and Swedish dialects has led many scholars to develop theories on the origin of the two Scandinavian word tones. Research has turned up a number of problem areas in these previous theories, but the theory proposed recently in rough outline by Richard d'Alquen linking heavy post-radical syllables in Germanic and Proto-Norse with the Scandinavian Toneme II allows us to view the problem of the origin of Scandinavian accentuation from a new perspective. We found d'Alquen's theory attractive because it links many phenomena in Germanic linguistics that were previously regarded as independent, thus incorporating Scandinavian accent into the whole picture of accentual development in Germanic. The theory also builds nicely on notions which previous linguists have considered important, such as syllable structure (Ekblom), post-radical accentuation (Kock, Ekblom) and Indo-European accent (Noreen, Schultheiss, Roberts) and emphasizes the natural relationship between stress and pitch. Most compelling is the role given to post-radical syllable structure, especially since we identified this as the chief factor in determining toneme distribution in the modern languages.

The results of the present investigation into the correspondences between post-radical syllable weight in Proto-Norse and present-day tonal accentuation seem to provide positive, tangible support for d'Alquen's theory. The presence of Accent I in the modern languages could most consistently be traced to Proto-Norse monosyllables or root accented polysyllables with light endings, the presence of Accent II most consistently corresponded to the existence of either a heavy syllable or a succession of two light post-radical syllables in Proto-Norse. There were only five instances in which such positive correspondences could not be found: (1) the pres. ind. sg. of class II and III weak verbs alternates between Accents I and II, but Proto-Norse endings are all heavy; (2) class Ia (original short root) weak verbs have Accent II in the pres. ind. sg., but proto-endings are light; (3) antiquated datives take Accent II in some noun classes which did not exhibit heavy proto-endings; (4) the pret. pl. of strong verbs has Accent II, but Proto-Norse endings are light; (5) the r-stems take Accent II in the plural, but had light Proto-Norse endings.

Reference must be made to analogy in explaining these exceptions, but the references are very specific; there are no 'blanket' references such as found in Kock, and analogical force (pressure of pattern) in the explanations will be found to come from forms of greater or equal frequency. Analogy must be expected to some extent; its total absence would tend to cast doubt on our results rather than to support their accuracy. Our explanations may be summarized as follows:

> (1) Classes II and III weak verbs, despite original heavy endings, show an old trend toward single root accent as illustrated by inconsistencies in suffix accent markings in Notker. Because strong and some class I weak verbs have Accent I in the pres. sg. and Accent II is less acoustically stable and serves a negligible marking function here, one could easily envision a trend toward Accent I. Since a majority of class III verbs have monosyllabic present tense forms, one might well expect Accent I to spread throughout this small class by analogy.
>
> (2) Class Ib (original long root) weak verbs with heavy Proto-Norse endings predictably exhibit Accent II in the pres. ind. sg. In transition to Modern Scandinavian, the short roots of class Ia verbs were lengthened by several means, so that these verbs acquired the same root structure and fell together with class Ib. The accent patterning of class Ib (Accent II in pres. ind. sg.) was thus adopted by most class Ia verbs. Similar to the situation in classes II and III weak, some evidence of a beginning trend toward Accent I in the pres. ind. is also found in the class I verbs.
>
> (3) Norse is suspected of having generalized Accent II, taken from those dative forms that did have a heavy ending in Proto-Norse, as a dative marker. (The surviving dative ending used on all antiquated forms is *-e*, derived ultimately from the frequent heavy P.N. *-ē*.)
>
> (4/5) Plural noun and verb forms had heavy endings in the vast majority of cases, so that the spread of Accent II by analogy among plurals would not at all be unexpected. The Norwegian r-stem plural *'døtre* ('daughters') has managed to survive as an accentual relic reflecting original conditions in the plurals of that noun class.

Because of the original distribution of heavy suffixes, a major singular-plural accentual distinction emerged in the strong verbs and the majority of nouns and adjectives, such that Accent I occurs in the singular and Accent II in the plural. Judging by the exceptions to this singular-plural accent distinction, Accent II can be tolerated in singular forms if the original ending was heavy, but Accent I is not desired in the plural unless necessitated by word structure (i.e., a monosyllable). The frequency of Accent II in plural forms may be assumed to have led to an association of the two in the minds of speakers, so that Accent II developed a certain "markedness" for the plural. Accent II resulting from original heavy endings is found in singular forms of 8 morphological categories: (1) pres. ind. of weak verbs, (2) jō-stems, (3) ō-stems in *-(n)ing*, (4) polysyllabic a- and u-stems, (5) weak nouns, (6) īn-stems, (7) r-stems, (8) nd-stems. But Accent I is found in the plural of only 3 small groups: (a) neuter a-stems, (b) root stems, (c) nd-stems. The neuter a-stem plurals have long been monosyllabic; the root and nd-stem plurals had light endings in Proto-Norse, were reduced to monosyllables by Old Norse, and were made polysyllabic again by epenthesis in transition to Modern Scandinavian. Unlike the r-stem plurals and the nd-stem *"fiender*, which were similarly extended by epenthesis but adopted Accent II by analogy, the plural accentuation of the root stems and the nd-stem *'bønder* has remained unaffected.

The structure of post-radical syllables indicates, if we accept d'Alquen's theory, that the distribution of Accents I and II was fixed in the Early Proto-Norse period. This is the time period in which the maximum correspondence between heavy suffix and Accent II, light suffix and Accent I is noted. Infinitives and 3 pl. pres. ind. forms exhibit Accent II, for which a heavy ending is necessary. Such a heavy ending does not exist after the Early Proto-Norse period: E.P.N. **-ann* (H) → **-an* (L) by Late Proto-Norse. Though the process of accent attraction doubtless began in Germanic times, we know from the ō- and wō-stem singulars, for example, that Germanic was not the stage of prime importance in determining Scandinavian accentuation. Singular endings in these noun classes were still heavy in Germanic, but Modern Scandinavian exhibits monosyllables with Accent I, reflecting the light endings (lost later through syncope/apocope) of Proto-Norse.

The scope of the present study does not allow a full investigation of accentual development in adjectives. Although the brief inspection afforded them seemed to indicate that their accentuation could be fully accounted for by post-radical syllable weights, a detailed examination of the historical inflectional endings and their phonological development is called for to permit a more definite conclusion. The results of our investigation of nouns and verbs do clearly support d'Alquen's theory, but as with all such studies, the strength of the evidence could be further intensified by a similar or repeat study using completely different vocabulary items and with greater attention to the uniformity of toneme distribution within each of the classes. This would help solve any question regarding the representativeness of the vocabulary items selected for the present study. Derivational suffixes, only a handful of which were covered in the present thesis, cry out for further investigation, and the applicability of the theory to the accentuation of compounds and borrowed vocabulary also needs to be investigated. An evalution of the effects of nasalization--a factor which was not taken into account in the present study--on Proto-Norse syllable weights could help to eliminate some of the awkwardness in our explanations of the accentuation of plural verb forms, infinitives and weak nouns. And an examination of the accentology of several Norwegian and Swedish dialects as compared to Proto-Norse syllable weights would be considered of enormous value in further evaluating the origin of Scandinavian accent from this new perspective.

The value of the present thesis in supporting and establishing a viable explanation for the origins of Scandinavian accentuation can be recognized most clearly if we reflect back on the modern (Norwegian) criteria for determining toneme distribution outlined in Chapter II (p. 12-13). The reader will find significant correspondences between the grammatical categories and final syllables that are considered decisive for the modern languages and the categories for Accents I and II produced by syllable weights according to the investigation in Chapter V. Exceptions to this are mostly borrowed vocabulary, compounds and derivational endings, which were not investigated here.

Heavy post-radical syllables in Proto-Norse account for the presence of Toneme II in the following present-day categories of polysyllables:

(1) Definite singular of kinship terms: *"faren, "broren*, etc.
(2) Plural forms of Toneme I monosyllables.
(3) Nouns in *-(n)ing*.
(4) Comparatives and superlatives in *-ere, -est*; some comparatives in *-re*.
(5) Adjectives in *-ig* and *-en* (masc. participles).
(6) Plural and weak forms of all adjectives.
(7) Infinitives.
(8) Present and past participles.
(9) Simple past of weak verbs.

Light Proto-Norse post-radical syllables, later syncopated and sometimes restored by epenthesis, account for monosyllabic and the following modern polysyllabic categories of Toneme I:

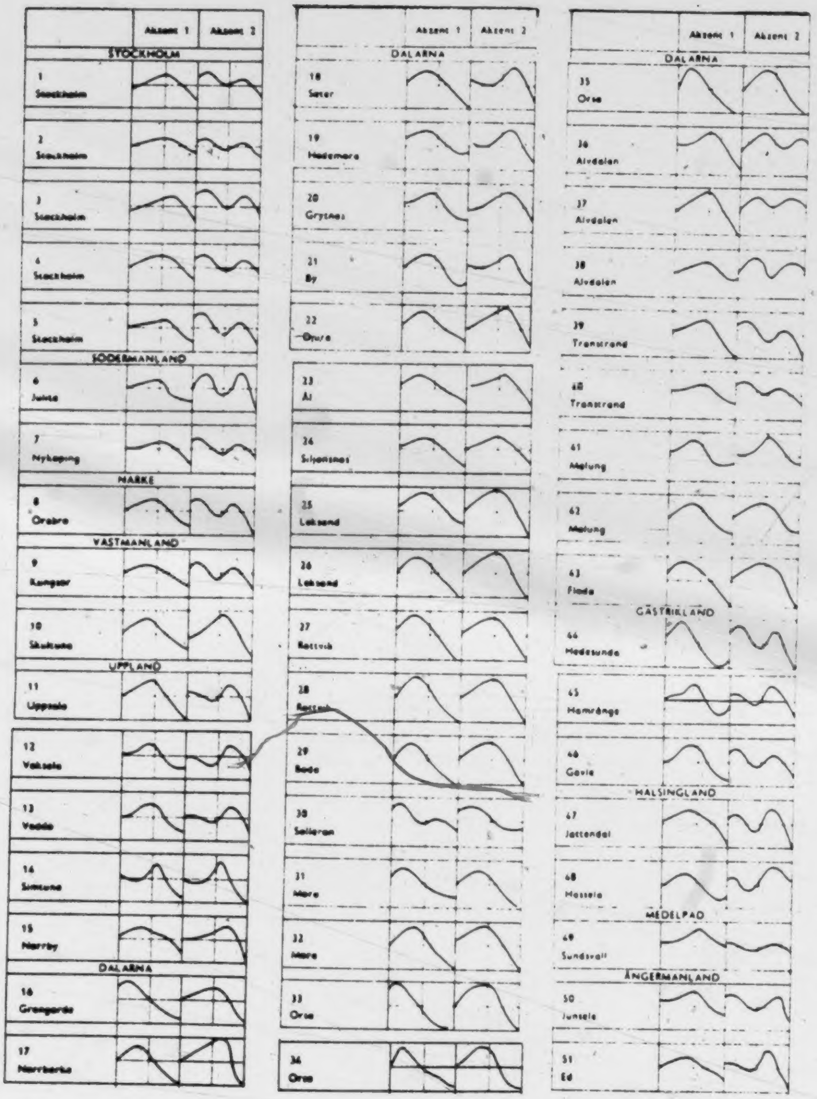
(1) Singular and plural forms of disyllabic nouns in *-el*, *-en* and *-er* which were monosyllabic in Old Norse.
(2) The plural forms *'bøker, 'føtter, 'bønder, 'hender, 'netter, 'tenner* (old root and nd-stems).
(3) Most comparatives in -re (← analogy with adverbial comparatives).
(4) Present tense of all strong verbs.

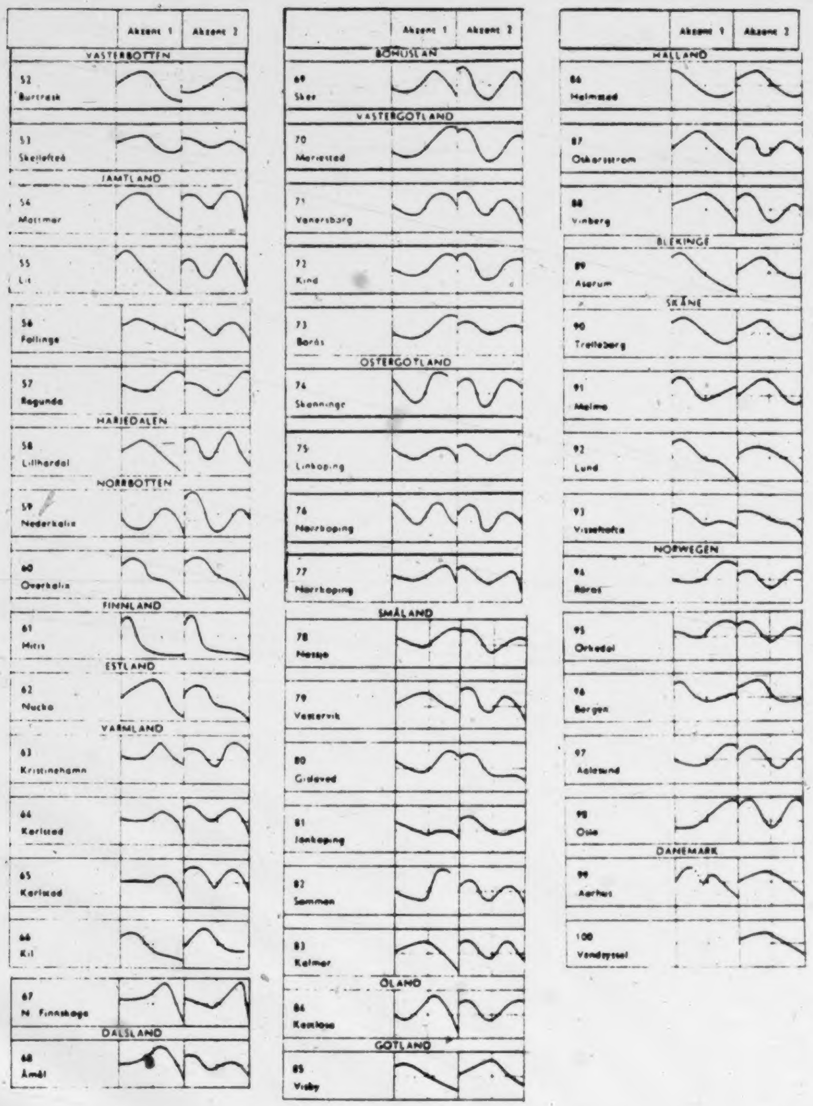
I consider this to be the most compelling aspect of Richard d'Alquen's syllable weight theory: its ability to predict so accurately and explain so simply and clearly the distribution of tonemes as observed by the present-day synchronic descriptive linguist.

VII. APPENDIX

TABLE I

Schematic Accent 1 and Accent 2 pitch patterns of a hundred Scandinavian dialects according to E.A. Meyer: Die Intonation im Schwedischen, part II.

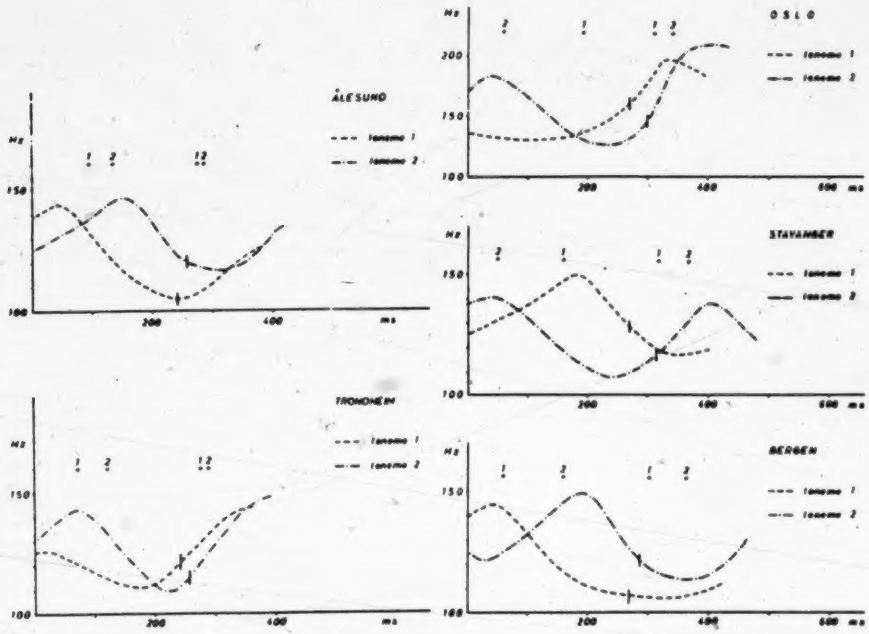




FROM: Eva Gårding, The Scandinavian Word Accents, p. 30.

TABLE II

Typical Accent 1 and Accent 2 pitch patterns of bisyllabics in Norwegian dialects according to K. Fintoft, 1970. Vertical line shows the beginning of the last vowel. The crosses correspond to the average position of the intensity maxima.



FROM: Eva Gårding, The Scandinavian Word Accents, p. 36.

TABLE III
PARADIGMS FOR THE INVESTIGATION OF NORSE SYLLABLE STRUCTURES

PART I: VERBS

Weak Verbs

	Germanic	Proto-Norse	Old Norse	Modern
A. Class Ia or ja-class				
Inf.	waljan(a)n	waljan(n)	velja	velge^{2}[214]
Ind. Pres. Sg. 1.	wali(j)ō	walju	vel	velger^{2}
2.	wali(j)iz	waliR	velr	
3.	wali(j)iđ	waliđ	(velr)	
Pl. 1.	wali(j)om(i)z	waljamR/-umR	veljum	(S. välje^{2})
2.	wali(j)iđ(i)	waljiđ	veliđ	
3.	wali(j)and(i)	waljan(n)	velja	
Pres. Part.	wali(j)andj-	waljandj-	veljandi	velgende^{2}
Imp. Sg. 2.	wali	wali	vel	velg^{1}
Opt. Pres. Sg. 1.	wali(j)ajum	waljau	velja	
2.	wali(j)aiz	waljēR	velir	
3.	wali(j)ai	waljē	veli	
Pl. 1.	wali(j)aim(ē)	waljēm	velim	
2.	wali(j)aiđ	waljēđ	veliđ	
3.	wali(j)ain(a)	waljēn(a)	veli	
Ind. Pret. Sg. 1.	walidō(m)	walidō	valda	valgte^{2}
2.	walidēz	walidēR	valdir	
3.	walidē	walidē	valdi	
Pl. 1.	walidedum	walidum	vǫldum	
2.	walidedud	walidud	vǫldud	
3.	walidedun	walidun(n)	vǫldu	
Opt. Pret. Sg. 1.	walidedī	walid(i)au	velda	
2.	walidedīz	walidīR	veldir	(S. valde^{2})
3.	walidedī	walidī	veldi	
Pl. 1.	walidedīm(ē)	walidīm	veldim	
2.	walidedīđ	walidīđ	veldiđ	
3.	walidedīn(a)	walidīn(a)	veldi	
Past part.	walidaz	walidaR	val(i)đr	valgt^{1}

Other verbs in the same class: flytja (flytte^{2}), vekja (vekke^{2}), dylja (dølge^{2}), spyrja*(spørre^{2}), smyrja*(smøre^{2}), telja (telle^{2}), lykja (lukke^{1}igjen), gleđja (glede^{2}).

	Germanic	Proto-Norse	Old Norse	Modern
Class Ib or ie-class				
Inf.	dōmijan(a)n	dōmijan(n)	dœma	dømme^{2}
Ind. Pres. Sg. 1.	dōmi(j)ō	domiu	dœmi	dømmer^{2}
2.	dōmi(j)iz	dōmīR	dœmir	
3.	dōmi(j)iđ	dōmīđ	(dœmir)	

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[214] waljan(a)n is the most frequently cited example for this class. Unfortunately, the Bokmål form shows Danish influence: g instead of j. In spite of this, I have chosen to retain the example, since the accentuation is unaffected.

Pl. 1.	dōmi(j)om(i)z	dōmijamR/-umR	dœmum	(S. dōma^2)
2.	dōmi(j)ið(i)	dōmīð	dœmið	
3.	dōmi(j)and(i)	dōmijan(n)	dœma	
Pres. Part.	dōmi(j)andj-	dōmijandj-	dœmandi	dømmende^2
Imp. Sg. 2.	dōmi	dōmi	dœm	døm^1
Opt. Pres. Sg. 1.	dōmi(j)aju(n)	dōmijau	dœma	
2.	dōmi(j)aiz	dōmijēR	dœmir	
3.	dōmi(j)ai	dōmijē	dœmi	
Pl. 1.	dōmi(j)aim(ē)	dōmijēm	dœmim	
2.	dōmi(j)aið	dōmijēð	dœmið	
3.	dōmi(j)ain(a)	dōmijēn(a)	dœmi	
Ind. Pret. Sg. 1.	dōmiðō(m)	dōmidō	dœmda	dømte^1
2.	dōmiðēz	dōmidēR	dœmdir	
3.	dōmiðē	dōmidē	dœmdi	
Pl. 1.	dōmiðedum	dōmidum	dœmdum	
2.	dōmiðeduð	dōmiduð	dœmduð	
3.	dōmiðedun	dōmidun(n)	dœmdu	
Opt. Pret. Sg. 1.	dōmiðedī	dōmid(i)au	dœmda	(S. dōmde^2)
2.	dōmiðedīz	dōmidīR	dœmdir	
3.	dōmiðedī	dōmidī	dœmdi	
Pl. 1.	dōmiðedīm(ē)	dōmidīm	dœmdim	
2.	dōmiðedīð	dōmidīð	dœmdið	
3.	dōmiðedīn(a)	dōmidīn(a)	dœmdi	
Past Part.	dōmiðaz	dōmidaR	dœmdr	dømt^1

Other verbs in the same class: fœra (føre^2), knýta (knytte^2), eyda (øyde^2), senda (sende^2), kemba (kjemme^2), erfa (arve^2), fylgja (følge^2), heyra (høre^2), fylla (fylle^2), maela (måle^2), sigla (segle^2), brenna (brenne^2, tr.), hefna (hevne^2), kenna (kjenne^2), merkja (merke^2).

3. Class II or
ō-class

Inf.	kallōjan(a)n	kallōn(n)	kalla	kalle^1
Ind. Pres. Sg. 1.	kallōjō	kallō	kalla	kaller^1
2.	kallōjiz	kallōR	kallar	
3.	kallōjið	kallōð	kallar	
Pl. 1.	kallōjom(i)z	kallōm	kǫllum	(S. kalla^2)
2.	kallōjið(i)	kallōð	kallið	
3.	kallōjand(i)	kallōn(n)	kalla	
Pres. Part.	kallōjandj-	kallandj-	kallandi	kallende^1
Imp. Sg. 2.	kallō	kallō	kalla	kal^1 (S. kalla^2)
Opt. Pres. Sg. 1.	kallōjaju(n)	kallau/-ō	kalla	
2.	kallōjaiz	kallēR	kallir	
3.	kallōjai	kallē	kalli	
Pl. 1.	kallōjaim(ē)	kallēm	kallim	
2.	kallōjaið	kallēð	kallið	
3.	kallōjain(a)	kallēn	kalli	

Ind. Pret. Sg. 1.	kallōđō(m)	kallōđō	kallađa	kalte^{2} [215]
2.	kallōđēz	kallōđēR	kallađir	
3.	kallōđē	kallōđē	kallađi	(S. kallade^{2})
Pl. 1.	kallōđeđum	kallōđum	kǫlluđum	
2.	kallōđeđuđ	kallōđuđ	kǫlluđuđ	
3.	kallōđeđun	kallōđun	kǫlluđu	
Opt. Pret. Sg. 1.	kallōđeđī	kallōđjau	kallađa	
2.	kallōđeđīz	kallōđīR	kallađir	(S. kallade^{2})
3.	kallōđeđī	kallōđī	kallađi	
Pl. 1.	kallōđeđīm(ē)	kallōđīm	kallađim	
2.	kallōđeđīđ	kallōđīđ	kallađiđ	
3.	kallōđeđīn(a)	kallōđīn	kallađi	
Part. Pret.	kallōđaz	kallōđaR	kallađr	kalt^{1} (S. kallat^{2})

Other verbs in the same class: líka (like^{2}), herja (herje^{2}), spá (spå^{1}), dýrka (dyrke^{2}), eggja (egge^{2}).

C. Class III or ē-class

Inf.	dugējan(a)n	dugēn(n)	duga	duge^{2}
Ind. Pres. Sg. 1.	dugējō	dugē	dugi	duger^{1}
2.	dugējiz	dugēR	dugir	
3.	dugējiđ	dugēđ	dugir	
Pl. 1.	dugējom(i)z	dugēmR	dugum	
2.	dugējiđ(i)	dugēđ	dugiđ	(S. duga^{2})
3.	dugējand(i)	dugan(n)	duga	
Pres. Part.	dugējandj-	dugandj-	dugandi	dugende^{2}
Imp. Sg. 2.	dugē	dugē	dugi	dug^{1}
Opt. Pres. Sg. 1.	dugējaju(n)	dugau	duga	
2.	dugējaiz	dugēR	dugir	
3.	dugējai	dugē	dugi	
Pl. 1.	dugējaim(ē)	dugēm	dugim	
2.	dugējaiđ	dugēđ	dugiđ	
3.	dugējain(a)	dugēn	dugi	
Ind. Pret. Sg. 1.	dugēđō(m)	dugēđō	dugđa	dugde^{2}
2.	dugēđēz	dugēđēR	dugđir	
3.	dugēđē	dugēđē	dugđi	
Pl. 1.	dugēđeđum	dugēđum	dugđum	
2.	dugēđeđuđ	dugēđuđ	dugđuđ	
3.	dugēđeđun	dugēđun(n)	dugđu	
Opt. Pret. Sg. 1.	dugēđeđī	dugēđau	dugđa	
2.	dugēđeđīz	dugēđīR	dugđir	(S. dugde^{2})
3.	dugēđeđī	dugēđī	dugđi	
Pl. 1.	dugēđeđīm(ē)	dugēđīm	dugđim	
2.	dugēđeđīđ	dugēđīđ	dugđiđ	
3.	dugēđeđīn(a)	dugēđīn(a)	dugđi	
Past Part.	dugēđaz	dugēđaR	dugat	dugd^{1}

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[215] In Bokmål, this particular verb has gone over to another class, hence -te instead of the expected -et. The Swedish preterite form reflects normal development.

Other verbs in the same class: gapa (gape^2), lifa (leve^2), spara (spare^2), trua (tro^1), hafa (ha^1), kaupa (kjøpe^2), segja (si^1).

Strong Verbs

D. Class I

Inf.	bītan(a)n	bītan(n)	bíta	bite^2
Ind. Pres. Sg. 1.	bītō	bītu	bít	biter^1
2.	bītizi	bītiR	bítr	
3.	bītiði	bītið	bítr	
Pl. 1.	bītomiz	bītom	bítum	(S. bita^2)
2.	bītiði	bītið	bítið	
3.	bītandi	bītan(n)	bíta	
Pres. Part.	bītandj-	bītandj-	bítandi	bitende^2
Imp. Sg. 2.	bīt	bīt	bít	bit^1
Opt. Pres. Sg. 1.	bītaju(n)	bītau	bíta	
2.	bītaiz	bītēR	bítir	
3.	bītai	bītē	bíti	
Pl. 1.	bītaim(ē)	bītēm	bítim	
2.	bītaið	bītēð	bítið	
3.	bītain(a)	bītēn(a)	bíti	
Ind. Pret. Sg. 1.	bait	bait	beit	bet^1
2.	baist	bai(t)st	beist	
3.	bait	bait	beit	
Pl. 1.	bitum	bitum	bitum	(S. beto^2)
2.	bituð	bituð	bituð	
3.	bitun	bitun	bitu	
Opt. Pret. Sg. 1.	bitī	bitjau/-jō	bita	(S. bite^2)
2.	bitīz	bitīR	bitir	
3.	bitī	bitī	biti	
Pl. 1.	bitīm(ē)	bitīma	bitim	
2.	bitīð	bitīð	bitið	
3.	bitīn(a)	bitīn	biti	
Past Part.	bitanaz	bitinaR	bitinn	bitt^1 (S. bitit^2)

Other verbs in the same class: hvína (kvine^2), klípa (klipe^2), ríta (rite^2), skína (skinne^2), skríða (skride^2), stíga (stige^2), svífa (svive^2).

E. Class II

Inf.	beudan(a)n	beudan(n)	bjóða	by^1/byde^2
Ind. Pres. Sg. 1.	beudō	biudu	býð	byr^1
2.	beudizi	biudiR	býðr	
3.	beudiði	biudið	býðr	
Pl. 1.	beudomiz	beudamR	bjóðum	
2.	beudiði	beudið	bjóðið	(S.bjuda^2)
3.	beudandi	beudan(n)	bjóða	

Pres. Part.	beudandj-	beudandj-	bjóðandi	bydende^{2}
Imp. Sg. 2.	beud	beud	bjóð	by'
Opt. Pres. Sg. 1.	beudaju(n)	beudau	bjóða	
2.	beudaiz	beudōR	bjóðir	
3.	beudai	beudō	bjóði	
Pl. 1.	beudaim(ē)	beudōm	bjóðim	
2.	beudaið	beudōð	bjóðið	
3.	beudain(a)	beudōn(a)	bjóði	
Ind. Pret. Sg. 1.	baud	baud	bauð	bød'
2.	baust	bautst	bauzt	
3.	baud	baud	bauð	
Pl. 1.	budum	budum	buðum	
2.	buduð	buduð	buðuð	(S. bjōdo^{2})
3.	budun	budun	buðu	
Opt. Pret. Sg. 1.	budī	budjau	byða	
2.	budīz	budīR	byðir	(S. bjōde^{2})
3.	budī	budī	byði	
Pl. 1.	budīm(ē)	budīm	byðim	
2.	budīð	budīð	byðið	
3.	budīn(a)	budīn(a)	byði	
Past Part.	budanaz	bodinaR	boðinn	budt' (S. bjudit)

Other verbs are: *krjúpa* (krype^{2}), *brjóta* (bryte^{2}), *súpa* (supe^{2}), *drjúpa* (dryppe^{2}), *fjúka* (fyke^{2}), *ljúga* (lyge^{2}), *rjúka* (ryke^{2}).

F. Class III

Inf.	bindan(a)n	bindan(n)	binda	binde^{2}
Ind. Pres.	bind-	bind-	bind(r)	binder'
Pres. Part.	bindandj-	bindandj-	bindandi	bindende^{4}
Imp. Sg. 2.	bind	bind	bitt	bind'
Ind. Pret. Sg.	band	band	batt	bandt'
Pl.	bundum	bundum	bundum	(S. bundo^{4})
Past Part.	bundanaz	bundinaR	bundinn	bundet^{2}

Endings are identical to those of the other strong classes.

Other verbs are: *svelgja* (svelg(j)e^{2}), *verpa* (verpe^{2}), *drekka* (drikke^{2}), vinda (vinde^{2}), *vinna* (vinne^{2}), *svimma* (svømme^{2}), *springa* (springe^{2}), *spinna* (spinne^{2}).

G. Class IV

Inf.	kweman(a)n	kveman(n)	koma	komme^{2}
Ind. Pres.	kwem-	kvem(-)	køm, kem(-)	kommer'
Pres. Part.	kwemandj-	kvemandj-	komandi	kommende^{2}
Imp. Sg. 2.	kwem	kvem	kom	kom'
Ind. Pret. Sg.	kwam	kvam	kom/kvam	kom'
Pl.	kwēmum	kvāmum	kómum/kvámum	(S. kommo^{2}
Past Part.	kwumanaz -enaz	k(v)ominaR	kominn	kommet^{4}

Endings are identical to those of the other strong classes.
Other verbs in this class are: bera (bære^2), sofa (sove^2), svima (svømme^2) vefa (veve^2).

H. Class V

Inf.	geban(a)n	geban(n)	gefa	gi'
Ind. Pres. Sg. 1.	gebō	gibu	gef	gir'
2.	gebizi	gibiR	gefr	
3.	gebiði	gibið	gefr	
Pl. 1.	gebomiz	gebamR	gefum	
2.	gebiði	gebið	gefið	(S. giva^2)
3.	gebandi	geban(n)	gefa	
Pres. Part.	gebandj-	gebandj-	gefandi	givende^2
Imp. Sg. 2.	geb	geb	gef	gi'
Opt. Pres. Sg. 1.	gebaju(n)	gebau	gefa	
2.	gebaiz	gebōR	gefir	
3.	gebai	gebō	gefi	
Pl. 1.	gebaim(ē)	gebōm	gefim	
2.	gebaið	gebōð	gefið	
3.	gebain(a)	gebōn(a)	gefi	
Ind. Pret. Sg. 1.	gab	gab	gaf	gav'
2.	gabt	gaft	gaft	
3.	gab	gab	gaf	
Pl. 1.	gēbum	gābum	gáfum	
2.	gēbuð	gābuð	gáfuð	(S. gåvo^2)
3.	gēbun	gābun	gáfu	
Opt. Pret. Sg. 1.	gēbī	gābjau	gǽfa	(S. gåve^2)
2.	gēbīz	gābīR	gǽfir	
3.	gēbī	gābī	gǽfi	
Pl. 1.	gēbīm(ē)	gābīm	gǽfim	
2.	gēbīð	gābīð	gǽfið	
3.	gēbīn(a)	gābīn(a)	gǽfi	
Past part.	gebanaz	gebinaR	gefinn	gitt' (S.givit^2)

Other verbs in the same class: dropa (drepe^2), lesa (lese^2), biðja (be'), liggja (ligge^2), sitja (sitte^2), eta (ete^2).

I. Class VI

Inf.	faran(a)n	faran (n)	fara	fåre^2
Ind. Pres. Sg. 1.	farō	faru	fer	farer'
2.	fariz(i)	fariR	ferr	
3.	farið(i)	farið	ferr	
Pl. 1.	farom(i)z	farom	fǫrum	(S. fara^2)
2.	farið(i)	farið	farið	
3.	farand(i)	faran(n)	fara	
Pres. Part.	farandj-	farandj-	farandi	farende^2
Imp. Sg. 2.	far	far	far	far'

Opt. Pres. Sg.	1.	faraju(n)	farau	fara	
	2.	faraiz	farōR	farir	
	3.	farai	farē	fari	
Pl.	1.	faraim(ē)	farēm	farim	
	2.	faraið	farēð	farið	
	3.	farain (a)	farēn(a)	fari/-in	
Ind. Pret. Sg.	1.	fōr	fōr	fór	fór'
	2.	fōrt	fōrt	fórt	
	3.	fōr	fōr	fór	
Pl.	1.	fōrum	fōrum	fórum	(S. foro^2)
	2.	fōruð	fōruð	fóruð	
	3.	fōrun	fōrun	fóru	
Opt. Pret. Sg.	1.	fōrī	fōrjō	fœra	
	2.	fōrīz	fōrīR	fœrir	(S. fōre^2)
	3.	fōrī	fōrī	fœri	
Pl.	1.	fōrīm(ē)	fōrīma	fœrim	
	2.	fōrīð	fōrīð	fœrið	
	3.	fōrīn(a)	fōrīn	fœri	
Past Part.		faranaz	farinaR	farinn	faret^2

Other verbs in the same class are: grafa (grave^2), mala (male^2), skafa (skave^2), vaða (vade^2), vaxa (vokse^2), hefja (heve^2), skepja (skape^2), sverja (sverge^2), draga (dra'), hlæja (le'), slá (slå').

J. Reduplicating Verbs (Class VII)

Inf.	haitan(a)n	haitan(n)	heita	hete^2
Ind. Pres.	hait-	hait-	heit(-)	heter'
Pres. Part.	haitandj-	haitandj-	heitandi	hetende^2
Imp. Sg. 2.	hait	hait	heit	het'
Ind. Pret. Sg.	hehait	hēt	hét	het'
Pl.	hehaitum	hētum	hetum	(S. heto^2)
Past Part.	haitanaz	haitinaR	heitinn	hett'

Other verbs in the same class are: leika (le(i)ke^2), auka (auke/øke^2), hlaupa (løpe^2), blanda (blande^2), fá (< fanhan) (få'), falla (falle^2), ganga (gå'), halda (holde^2), blása (blåse^2), gráta (gråte^2), láta (late^2), sá (så').

Endings are identical to those of the other strong classes.

K. Preterite-Present Verbs

Inf.		witan (a)n	witan(n)	vita	vite^2
Ind. Pres. Sg.	1.	wait	wait	veit	
	2.	waist	waitst	veizt	vet'
	3.	wait	wait	veit	
Pl.	1.	witum	witum	vitum	
	2.	witud	witud	vituð	(S. veta^2)
	3.	witun	witun	vitu	

Pres. Part.	witandj-	witandj-	vitandi	vitende^2
Imp. Sg. 2.	wit	wit	vit	vit''
Opt. Pres. Sg. 1.	witai̯u(n)	witau	vita	
2.	witaiz	witēR	vitir	
3.	witai	witē	viti	
Pl. 1.	witaim(ē)	witēm	vitim	
2.	witaið	witēð	vitið	
3.	witain(a)	witēn(a)	viti	
Ind. Pret. Sg. 1.	wissō	wissō	vissa	visste^2
2.	wissēz	wissēR	vissir	
3.	wissē	wissē	vissi	
Pl. 1.	wissum	wissum	vissum	
2.	wissuð	wissuð	vissuð	
3.	wissun	wissun	vissu	
Opt. Pret. Sg. 1.	wissī	wissjau/-jō	vissa	(S. visste^2)
2.	wissīz	wissīR	vissir	
3.	wissī	wissī	vissi	
Pl. 1.	wissīm(ē)	wissīma	vissim	
2.	wissīð	wissīð	vissið	
3.	wissīn(a)	wissīn	vissi	
Past. Part.	?	?	vitaðr	visst' (S. vetat^2)
Inf.	kunnan(a)n	kunnan(n)	kunna	kunne^2
Ind. Pres. Sg. 1.	kann	kann	kann	kan'
2.	kannt	kant	kant	
3.	kann	kann	kann	
Pl. 1.	kunnum	kunnum	kunnum	
2.	kunnuð	kunnuð	kunnuð	(S. kunna^2)
3.	kunnun	kunnun	kunnu	
Pres. Part.	kunnandj-	kunnandj-	kunnandi	kunnende^2
Imp. Sg. 2.	kunn	kunn	kunn	kunn'
Opt. Pres. Sg. 1.	kunnai̯u(n)	kunnau	kunna	
2.	kunnaiz	kunnēR	kunnir	
3.	kunnai	kunnē	kunni	
Pl. 1.	kunnaim(ē)	kunnēm	kunnim	
2.	kunnaið	kunnēð	kunnið	
3.	kunnain(a)	kunnēn(a)	kunni	

Ind. Pret. Sg.	1.	kunþō	kunðō	kunna	kunne^{1}
	2.	kunþēz	kunðēR	kunnir	(måtte^{2})
	3.	kunþē	kunðē	kunni	(skulle^{2})
Pl.	1.	kunþum	kunðum	kunnum	
	2.	kunþuð	kunðuð	kunnuð	
	3.	kunþun	kunðun	kunnu	
Opt. Pret. Sg.	1.	kunþī	kunðjau/-jō	kynna	(S. kunde^{2})
	2.	kunþīz	kunðīR	kynnir	
	3.	kunþī	kunðī	kynni	
Pl.	1.	kunþīm(ē)	kunðīma	kynnim	
	2.	kunþīð	kunðīð	kynnið	
	3.	kunþīn(a)	kunðīn	kynni	
Past Part.		?	?	kunnat	kunnet^{1}

PART II: NOUNS

			Germanic	Proto-Norse	Old Norse	Modern
a-stems	Masc.	N	armaz	armaR	armr	arm^1
		A	arma(m)	arma	arm	
		G	armas(a)	armas	arms	
		D	armai	armē	armi	
		N	armōz	armōR	armar	armer^2
		A	armanz	arman(n)/-anR	arma	
		G	armō(m)	armō	arma	
		D	armomiz	armumR	ǫrmum	
			dagaz	dagaR	dagr	dag^1
			daga(m)	daga	dag	
			dagas(a)	dagas	dags	
			dagai	dagē	degi	
			dagōz	dagōR	dagar	dager^2
			daganz	dagan(n)	daga	
			dagō(m)	dago	daga	
			dagomiz	dagumR	dǫgum	
			hamaraz	hamaraR	hamarr	hammer^2
			hamara(m)	hamara	hamar	
			hamaras(a)	hamaras	hamars	
			hamarai	hamarē	hamri	
			hamarōz	hamarōR	hamrar	hamrer^2
			hamaranz	hamaran(n)	hamra	
			hamarō(m)	hamarō	hamra	
			hamaromiz	hamarumR	hǫmrum	
	Neut.		barna(m)	barna	barn	barn^1
			barna(m)	barna	barn	
			barnas(a)	barnas	barns	
			barnai	barnē	barni	
			barnō	barnu	bǫrn	barn^1
			barnō	barnu	bǫrn	
			barnō(m)	barnō	barna	
			barnomiz	barnumR	bǫrnum	
			fata(m)	fata	fat	fat^1
			fata(m)	fata	fat	
			fatas(a)	fatas	fats	
			fatai	fatē	fati	
			fatō	fatu	fǫt	fat^1
			fatō	fatu	fǫt	
			fatō(m)	fatō	fata	
			fatomiz	fatumR	fǫtum	

a-stems Neut.	sumarō	sumara	sumar	sommer^2
	sumarō	sumara	sumar	
	sumaras(a)	sumaras	sumars	
	sumarai	sumarē	sumri	
	sumarō	sumaru	sumur	somrer^2
	sumarō	sumaru	sumur	somre^2
	sumarō(m)	sumarō	sumra	
	sumaromiz	sumarumR	sumrum	
ja-stems Masc.	harjez	harjaR/-iaR	herr	hær'
	harja(m)	harja/-ia	her	
	harjas(a)	harjas/-ias	hers	
	harjai	harjē/-iē	heri	
	harjōz	harjōR/-iōR	herjar	hæror^2
	harjanz	harjan(n)/-ian(n)	herja	
	harjō(m)	harjō/-iō	herja	
	harjomiz	harjumR/-iumR	herjum	
	herđijaz	herđiaR	hirđir	hyrde^2
	herđija(m)	herđia	hirđi	
	herđijas(a)	herđias	hirđis	
	herđijai	herđiē	hirđi	
	herđijōz	herđiōR	hirđar	hyrder^2
	herđijanz	herđian(n)	hirđa	
	herđijō(m)	herđiō	hirđa	
	herđijomiz	herđiumR	hirđum	
Neut.	barija	baria/barja	ber	baer'
	barija	baria/barja	ber	
	barijas(a)	barias/barjas	bers	
	barijai	bariē/barjō	beri	
	barijō	bariu/barju	ber	bær'
	barijō	bariu/barju	ber	
	barijō(m)	bariō/barjō	berja	
	barijomiz	bariumR/barjumR	berjum	
	kwōđija	kvæđia	kvæđi	kvede^2
	kwōđija	kvæđia	kvæđi	
	kwōđijas(a)	kvæđias	kvæđis	
	kwōđijai	kvæđiē	kvæđi	
	kwōđijō	kvæđiu	kvæđi	kveder^2
	kwōđijō	kvæđiu	kvæđi	
	kwōđijō(m)	kvæđiō	kvæđa	
	kwōđijomiz	kvæđiumR	kvæđum	

wa-stems Masc.	sangwaz	sangwaR	sǫngr	sang^{1}
	sangwa(m)	sangwa	sǫng	
	sangwas(a)	sangwas	sǫngs	
	sangwai	sangwē	sǫngvi	
	sangwōz	sangwōR	sǫngvar	sanger^{2}
	sangwanz	sangwan(n)	sǫngva	
	sangwō(m)	sangwō	sǫngva	
	sangwomiz	sangwumR	sǫngum	
	saiwaz	sæwR/sæuR	sjór/sær	sjø^{1}
	saiwa(m)	sæu	sjó	
	saiwaz(a)	sæwaR	sjóvar	
	saiwai	sæwē	sjó(vi)	
	saiwōz	sæwōR	sjóvar	sjøer^{2}
	saiwanz	sæwan(n)	sjóva	
	saiwō(m)	sæwō	sjóva	
	saiwomiz	sæwumR	sjóvum	
ō-stems Fem.	manō	manu	mǫn	man^{1}
	manō	manu	mǫn	
	manōz	manōR	manar	
	manō(i)	manu	mǫn	
	manōz	manōR	manar	maner^{2}
	manōz	manōR	manar	
	manō(m)	manō	mana	
	manōmiz	manumR	mǫnum	
	druhtiningō	drōtningu	drótning	dronning^{2}
	druhtiningō(m)	drōtningu	drótning	
	druhtiningōz	drōtningōR	drótningar	
	druhtiningō(i)	drōtningu	drótningu	
	druhtiningōz	drōtningōR	drótningar	dronninger^{2}
	druhtiningōz	drōtningōR	drótningar	
	druhtiningō(m)	drōtninga	drótninga	
	druhtiningōmiz	drōtningumR	drótningum	
jō-stems Fem.	agwijō	auju	ey	øy^{1}
	agwijō(m)	auju	ey	
	agwijōz	aujōR	eyjar	
	agwijō(i)	auju	eyju	
	agwijōz	aujōR	eyjar	øyer^{2}
	agwijōz	aujōR	eyjar	
	agwijō(m)	aujō	eyja	
	agwijōmiz	aujumR	eyjum	

jō-stems Fem.	armijō	armīR	ermr (<i-stems)	erme^{2}
	armijō(m)	armī	ermi	
	armijōz	armāR	ermar	
	armijō(i)	armī (i-stems)	ermi (anal.)	
	armijōz	armiōR	ermar	ermer^{2}
	armijōz	armiōR	ermar	
	armijō(m)	armiō	erma	
	armijōmiz	armiumR	ermum	
wō-stems	stađwō	stađwu	stǫđ	stø^{1}
	stađwō(m)	stađwu	stǫđ	
	stađwōz	stađwōR	stǫđvar	
	stađwō(i)	stađwu	stǫđ(u)	
	stađwōz	stađwōR	stǫđvar	stør^{2}
	stađwōz	stađwōR	stǫđvar	
	stađwō(m)	stađwō	stǫđva	
	stađwōmiz	stađwumR	stǫđum	
i-stems Masc.	gastiz	gastiR	gestr	gjest^{1}
	gasti(m)	gasti	gest	
	gastaiz	gastāR/gastas	gests	
	gasti	gasti	gest	
	gastīz	gastīR	gestir	gjester^{2}
	gastinz	gastinR/-in(n)	gesti	
	gastō(m)	gast(i)ō	gesta	
	gastomiz	gastumR	gestum	
	stađiz	stađiR	stađr	stad^{1}
	stađi(m)	stađi	stađ	
	stađaiz	stađāR	stađar	
	stađi	stađi	stađ	
	stađīz	stađīR	stađir	stæder^{2}
	stađinz	stađin(n)	stađi	
	stađō(m)	stađ(i)ō	stađa	
	stađomiz	stađumR	stǫđum	
Fem.	ahslō	akslu	ǫxl	aksel^{1}
	ahslō(m) (<ō-stems)	akslu	ǫxl	
	ahslōz	akslōR	axlar	
	ahslō(i)	akslu	ǫxl	
	ahslīz	akslīR	axlir	aksler^{2}
	ahslīz	akslīR	axlir	
	ahslō(m)	akslō	axla	
	ahslōmiz	akslumR	ǫxlum	

i-stems				
Fem.	nauðiz	nauðiR	nauðr	nød^1
	nauði(m)	nauði	nauð	
	nauðaiz	nauðaR	nauðar	
	nauði	nauði	nauð	
	nauðīz	nauðīR	nauðir	nøder^2
	nauðīz	nauðīR	nauðir	
	nauðō(m)	nauðō	nauða	
	nauðōmiz	nauðumR	nauðum	
u-stems				
Masc.	ferðuz	ferðuR	fjǫrðr	fjord^1
	ferðu(m)	ferðu	fjǫrð	
	ferðauz	ferðōR	fjarðar	
	ferðēu	ferðiu	firði	
	ferðiwiz	ferðiuR	firðir	fjorder^1
	ferðunz	ferðunR/-un(n)	fjǫrðu	
	ferðō(m)	ferð(i)ō	fjarða	
	ferðumiz	ferðumR	fjǫrðum	
	sunuz	sunuR	sonr	sønn^1
	sunu(m)	sunu	son	
	sunauz	sunōR	sonar	
	sunēu	suniu	syni	
	suniwiz	suniuR	synir	sønner^2
	sununz	sununR/-un(n)	sonu	
	sunō(m)	sun(i)ō	sona	
	sunumiz	sunumR	sonum	
	fag(a)naðuz	fagnaðuR	fǫgnuðr	fagnad^2
	fag(a)naðu(m)	fagnaðu	fǫgnuð	
	fag(a)naðauz	fagnaðōR	fagnaðar	
	fag(a)naðēu	fagnaðiu	fagnaði	
	fag(a)naðiwiz	fagnaðiuR	fagnaðir	fagnader^2
	fag(a)naðunz	fagnaðunR/-un(n)	fǫgnuðu	
	fag(a)naðō(m)	fagnað(i)ō	fagnaða	
	fag(a)naðumiz	fagnaðumR	fǫgnuðum	
n-stems				
Masc.	hanēn	hanā/hanō	hani	hane^2
	hananun	hanan(n)	hana	
	hananiz	hanan	hana	
	hanani	hanan	hana	
	hananes	hanan	hanar (a-St.)	haner^2
	hananunz/-anz	hananR/-an(n)	hana	
	hananō(m)	hananō	hana	
	hanōnmiz/-ommiz	hanumR	hǫnum	

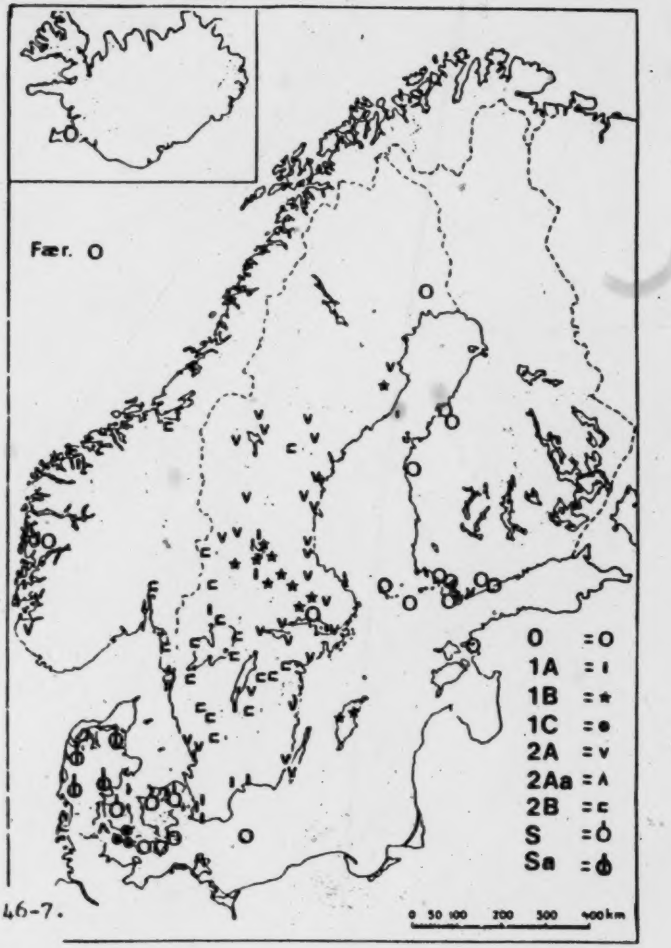
n-stems Masc.	garaznēn	grannā /grannō	granni	granne^2
	garaznanun	grannan(n)	granna	
	garaznaniz	grannan	granna	
	garaznani	grannan	granna	
	garaznanes	grannan	grannar (a-St.)	granner^2
	garaznanunz/-anz	grannanR	granna	
	garaznanō(m)	grannanō	granna	
	garazn(an)ōmiz/-ommiz	grannumR	grǫnnum	
Neut.	hertōn	hertō	hjarta	hjerte^2
	hertōn	hertō	hjarta	
	hertaniz	hertan	hjarta	
	hertani	hertan	hjarta	
	hertōnō	hertun(a)	hjǫrtu	hjerter^2
	hertōnō	hertun(a)	hjǫrtu	(S. hjärtan^2)
	hertanō(m)	hertanō	hjartna	
	hertōnmiz/-ommiz	hertumR	hjǫrtum	
	augōn	augō	auga	øye^2
	augōn	augō	auga	
	auganiz	augan	auga	
	augani	augan	auga	
	augōnō	augun(a)	augu	øyne^2/øyer^2
	augōnō	augun(a)	augu	(S. ögon^2)
	auganō(m)	auganō	augna	
	augōnmiz/-ommiz	augumR	augum	
Fem. (ōn-stems)	sagōn	sagō	saga	saga^2
	sagōnu(m)	sagōn(n)	sǫgu	
	sagōniz	sagōn(n)	sǫgu	
	sagōni	sagōn	sǫgu	
	sagōnes	sagōn(n)	sǫgur (a-St.)	sager^2
	sagōnunz	sagōn(n)	sǫgur	(S. sagor^2)
	sagōnō(m)	sagōnō	sagna	
	sagōnmiz	sagōmR	sǫgum	
īn-stems	glaðī(n)	glaðī	gleði	glede^2
	glaðīn	glaðīn	gleði	
	glaðīniz	glaðīn(n)	gleði	
	glaðīni	glaðīn	gleði	
r-stems	faðēr	faðār	faðir	fader^2 /far'
	faðeru(m)	faðeru	fǫður	
	faðurz	faður	fǫður	
	faðri	faðri	feðr	
	faðriz	faðriR	feðr	fedre^2
	faðriz	faðriR	feðr	
	faðrō(m)	faðrō	feðra	
	faðrumiz	faðrumR	feðrum	

r-stems					
	duhtār	dohtār		dóttir	datter^2
	duhteru(m)	dohtaru		dóttur	
	duhturz	dohtur		dóttur	
	duhtri	dohtaru		dóttur	
	duhtriz	dohtriR		dœtr	døtre'
	duhtriz	dohtriR		dœtr	
	duhtrō(m)	dohtrō		dœtra	
	duhtrumiz	dohtrumR		dœtrum	
root stems					
	fōtz	fōtR		fótr	fot'
	fōtV̌(m)	fōtu	< u-stems	fót	
	fōtas(a)	fōtōR		fótar	
	fōtai	fōtiu		fóti	
	fōtiz	fōt(i)R		føtr	føter'
	fōtiz	fōt(i)R		føtr	
	fōtōm	fōtō		fóta	
	fōtomiz	fōtumR		fótum	
nd-stems					
	?	bōndā/bōndē	<n-st.	bóndi	bonde^2
		bōndan(n)		bónda	
		bōndan		bónda	
		bōndan		bónda	
	?	bōnd(i)R	<root st.	bøndr	bønder'
		bōnd(i)R		bøndr	
		bōndō		bónda	
		bōndumR		bóndum	

MAP I

Preliminary Scandinavian Accent Typology based on manifestation of accent distinction in bisyllables

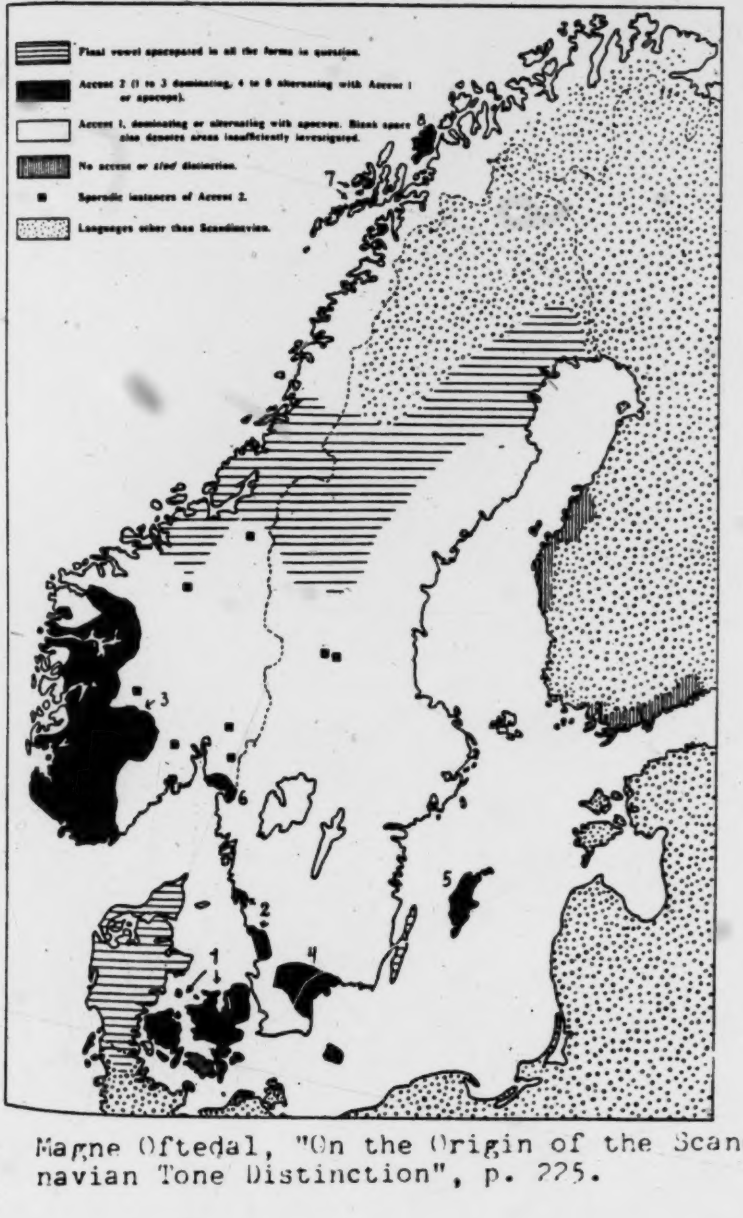
Type	Map sym-bol	Accent distinction	Accent 1	Accent 2	Region
		None			
0	O				North of Norway Finland North of Sweden South of Denmark
		Tonal			
1		Timing of pitch peak	One peak	One peak	
1A	ı		Early in the stressed syllable	Late in the stressed syllable	South of Sweden West of Norway
1B	★		Late in the stressed syllable	Early in the post-stress syllable	Gotland, Bergslagen (Sweden)
1C	●		Late in the stressed syllable	Late in the post-stress syllable	South of Funen (Denmark)
2		Number of pitch peaks	One peak	Two peaks	
2A	v		Late in the stressed or early in the post-stress syllable	One in each syllable	Central Sweden West Nyland (Finland) South West of Norway
2Aa	ʌ		In the stressed syllable	In the stressed syllable (apocopation)	South of Jutland (Denmark) Norway, Sweden
2B	⊂		In the post-stress syllable	One in each syllable	Göta dialect areas (Sweden) East of Norway
		Stød			
S	Ó		Stød	No stød	Zealand, Funen
Sa	ɸ		Stød	No stød (apocopation)	Jutland



FROM: Eva Gårding, The Scandinavian Word Accents, p. 46-7.

MAP II

The geographical distribution of accents in comparatives of the type *større, betre*. The object of the map is primarily to show where Accent 2 is found in syncopated comparatives, secondly to indicate the areas where none of the syncopated comparatives have a historically relevant accent (i. e. where all of them have lost their final vowel through apocope). The spaces left blank denote both established Accent 1 areas and regions with accent 1 and apocope in grammatical alternation or lexical distribution, as well as areas not investigated.


Final vowel apocopated in all the forms in question.
Accent 2 (1 to 3 dominating, 4 to 8 alternating with Accent 1 or apocope).
Accent 1, dominating or alternating with apocope. Blank space also denotes areas insufficiently investigated.
No accent or stød distinction.
Sporadic instances of Accent 2.
Languages other than Scandinavian.
8
7
3
6
2
1
4
5

FROM: Magne Oftedal, "On the Origin of the Scandinavian Tone Distinction", p. 225.

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